



REPORT

2014 SUMMARY REPORT ON GROUNDWATER CONDITIONS AT THE MONSANTO SODA SPRINGS PLANT

Soda Springs, Idaho

Submitted To: Monsanto Soda Springs Plant
Highway 34
Soda Springs, Idaho 83276

Submitted By: Golder Associates Inc.
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052 USA

Distribution:

3 Copies Monsanto, Soda Springs, Idaho
1 Copy EPA Region X, Richland, Washington
1 Copy IDEQ-Pocatello, Idaho
1 Copy IDEQ – Boise, Idaho
2 Copies Golder Associates Inc., Redmond, Washington

March 2015

Project No. 913-1101-004.001.1G





Table of Contents

1.0	INTRODUCTION.....	1
1.1	Report Organization	3
2.0	SAMPLE COLLECTION AND ANALYTICAL ACTIVITIES.....	4
3.0	2014 SAMPLING RESULTS.....	5
3.1	Groundwater Elevations and Flow Directions	5
3.2	Analytical Results	5
3.3	Constituent Concentrations in Point of Compliance Locations	6
3.4	Constituent Concentration Trends in Other Wells and Springs	7
3.4.1	Wells in the Plant	7
3.4.2	Wells South of the Plant.....	8
3.4.3	Wells in Soda Springs.....	8
3.4.4	Springs and Surface Water.....	8
4.0	OVERALL ASSESSMENT SUMMARY	9
4.1	Remediation Goals.....	9
4.2	Assessment of 2014 Water Quality Data	9
4.2.1	Upper Basalt Zone-4	10
4.2.2	Upper Basalt Zone-1	11
4.2.3	Upper Basalt Zone-2	12
4.3	Soda Creek	13
5.0	RECOMMENDATIONS.....	14
6.0	CLOSING	15
7.0	BIBLIOGRAPHY	16



List of Tables

Table 1	Well Completion Summary
Table 2	History of Groundwater Investigations at Monsanto Plant
Table 3	Groundwater Remediation Goals for the Monsanto Plant (in text)
Table 4	Sample Collection Summary June 2014
Table 5	Analytical Methods for Monsanto Groundwater Sampling
Table 6	Groundwater Elevations June 2014
Table 7	Field Water Quality June 2014
Table 8a	Analytical Results for Wells June 2014 Sample Round
Table 8b	Analytical Results for Springs, Surface Water, and Non-Contact Cooling Water June 2014 Sample Round
Table 9	June 2014 Results Compared to Remediation Goals
Table 10	June 2014 Measured Spring Discharge and Streamflows
Table 11	Short-Term Constituent Concentration Trends at Point of Compliance Wells and Soda Creek
Table 12	Short-Term Constituent Concentration Trends at Other Wells and Springs
Table 13	June 2014 UBZ-4 Results Compared to 1993 to 2013 Results
Table 14	June 2014 UBZ-1 Results Compared to 1993 to 2013 Results
Table 15	June 2014 UBZ-2 Results Compared to 1993 to 2013 Results

List of Figures

Figure 1	Monsanto Plant Vicinity Map
Figure 2	Location of Springs and Wells in the Upper Basalt Zone
Figure 3	Location of Wells in the Lower Basalt Zone
Figure 4	Monsanto Facility and Stockpile Map
Figure 5	Historical Inferred Source Areas
Figure 6	Private Wells, Springs, and Soda Creek Sampling Locations
Figure 7	Groundwater Elevation in the Upper Basalt Zone (June 2014)
Figure 8	Groundwater Elevations in the Lower Basalt Zone (June 2014)
Figure 9	Cadmium Concentrations in UBZ Groundwater and Surface Water June 2014 – North Sheet
Figure 10	Cadmium Concentrations in UBZ Groundwater and Surface Water June 2014 – South Sheet
Figure 11	Fluoride Concentrations in UBZ Groundwater and Surface Water June 2014 – North Sheet
Figure 12	Fluoride Concentrations in UBZ Groundwater and Surface Water June 2014 – South Sheet
Figure 13	Manganese Concentrations in UBZ Groundwater and Surface Water June 2014 – North Sheet
Figure 14	Manganese Concentrations in UBZ Groundwater and Surface Water June 2014 – South Sheet
Figure 15	Nitrate Concentrations in UBZ Groundwater and Surface Water June 2014 – North Sheet
Figure 16	Nitrate Concentrations in UBZ Groundwater and Surface Water June 2014 – South Sheet
Figure 17	Selenium Concentrations in UBZ Groundwater and Surface Water June 2014 – North Sheet
Figure 18	Selenium Concentrations in UBZ Groundwater and Surface Water June 2014 – South Sheet
Figure 19	Chloride Concentrations in UBZ Groundwater and Surface Water June 2014 – North Sheet
Figure 20	Chloride Concentrations in UBZ Groundwater and Surface Water June 2014 – South Sheet



-
- Figure 21 Molybdenum Concentrations in UBZ Groundwater and Surface Water June 2014 – North Sheet
Figure 22 Molybdenum Concentrations in UBZ Groundwater and Surface Water June 2014 – South Sheet
Figure 23 Sulfate Concentrations in UBZ Groundwater and Surface Water June 2014 – North Sheet
Figure 24 Sulfate Concentrations in UBZ Groundwater and Surface Water June 2014 – South Sheet

List of Appendices

- | | |
|------------|------------------------------------------------------------------------------|
| Appendix A | Time-History Graphs for Cadmium |
| Appendix B | Time-History Graphs for Fluoride |
| Appendix C | Time-History Graphs for Manganese |
| Appendix D | Time-History Graphs for Nitrate as N |
| Appendix E | Time-History Graphs for Selenium |
| Appendix F | Time-History Graphs for Chloride |
| Appendix G | Time-History Graphs for Molybdenum |
| Appendix H | Time-History Graphs for Sulfate |
| Appendix I | Groundwater Elevation Hydrographs |
| Appendix J | Data Validation Summary for 2014 Water Sampling, Monsanto Soda Springs Plant |
| Appendix K | Surface Water Sampling Locations |



ACRONYMS AND ABBREVIATIONS

AOC	Administrative Order on Consent
ARI	Analytical Resources Inc.
bgs	below ground surface
cfs	cubic feet per second
EPA	United States Environmental Protection Agency
Golder	Golder Associates Inc.
gpm	gallons per minute
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
LBZ	Lower Basalt Zone
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
N	Nitrogen
NO ₃	Nitrate
NPDES	National Pollution Discharge Elimination System
NTU	Nephelometric Turbidity Units
ORP	oxidation reduction potential
Plant	Monsanto Soda Springs Plant
QA/QC	quality assurance/quality control
RG	Remediation Goal
RI	Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SVL	SVL Analytical Inc.
UBZ	Upper Basalt Zone
UFS	Underflow Solids



1.0 INTRODUCTION

This report presents the results of groundwater and surface water sampling completed at the Monsanto Soda Springs Plant (Plant) in June 2014. The Plant is located approximately one mile north of the City of Soda Springs, Caribou County, Idaho (Figure 1). The site covers an area of approximately 800 acres, with the Plant accounting for 540 acres. Wells and springs at and in the vicinity of the Plant are shown on Figures 2 and 3 for the Upper Basalt Zone (UBZ) and Lower Basalt Zone (LBZ), respectively. Operational facilities and raw material stockpiles are shown on Figure 4. Well completion information is summarized in Table 1 for the monitoring wells and Plant production wells at and in the vicinity of the Plant.

This summary report is based on the groundwater and surface water quality data collected during sampling conducted from June 3 through June 14, 2014. The sampling program included wells and springs monitored as part of the annual sampling with the exception of TW-63 and TW-64 which were not sampled because the water level was below the base of the permanent sampling pumps, and Calf Spring, which was dry. The sampling included nine new monitoring wells (TW-71 through TW-79 inclusive) installed in the UBZ-2 and UBZ-4 source areas in late 2013 and early 2014 (Golder 2013b).

Three wells in the City of Soda Springs that were sampled in 2013 were not sampled in 2014:

- The Maughan well was not sampled because the well owner has decided to terminate use of the well for irrigation and has disconnected the power supply to the pump and pump controls.
- The two wells at the Tigert Middle School (Tigert East and Tigert South) were not sampled because of observed petroleum odors during the June 2013 sampling and the potential to generate petroleum contaminated waste during purging and sampling.

Table 2 presents a history of groundwater investigations at the Monsanto site. There are several constituent plumes on the site originating from Monsanto operations. Affected groundwater originates from four historical source areas within the Monsanto Plant (Figure 5):

- Old Underflow Solids (UFS) Ponds (UBZ-2 and UBZ-4)
- Northwest Pond (UBZ-4)
- Old Hydroclarifier (UBZ-4)
- Tailings Pond (UBZ-2)

The Old UFS Ponds, Northwest Pond, and Old Hydroclarifier were closed and capped in the 1980s (Golder 1995, 2013b), however, the Old UFS Ponds appear to have been closed by filling the ponds with crushed slag, rather than poured slag with a bentonite cap as previously reported. The Tailings Pond area appears to be covered with crushed slag and a small amount of native sand and silt fill (Golder 2014).



The Record of Decision (ROD) established groundwater remediation goals for the constituents of concern: cadmium, fluoride, nitrate, selenium, and manganese. The remediation goals are the Maximum Contaminant Levels (MCLs) under the Safe Drinking Water Act for cadmium, fluoride, nitrate, and selenium, and a risk-based concentration for manganese, as shown in Table 3.

Table 3: Groundwater Remediation Goals for the Monsanto Plant

Parameter	Remediation Goal (mg/L)	Regulatory Source
Cadmium	0.005	Maximum Contaminant Level
Fluoride	4	Maximum Contaminant Level
Nitrate as NO ₃ / Nitrate as N	44 /10	Maximum Contaminant Level
Selenium	0.05	Maximum Contaminant Level
Manganese	0.18	Risk-Based Concentration

Notes: mg/L = milligrams per liter

The remediation goal for nitrate (44 mg/L) is the MCL for nitrate expressed as nitrate (NO₃). However, the analytical data presented in this report are in the form of nitrate as expressed as nitrogen (N). The equivalent remediation goal for nitrate as N is 10 mg/L.

There were no surface water remediation goals established under the ROD. For some parameters, surface water quality standards are different than the remediation goals (Idaho Administrative Procedures Act [IDAPA 2010] 58.01.02.210).

Based on the ROD and modifications to the ROD, the point of compliance locations are listed below and shown on Figure 2:

- Production Wells - Wells PW-01, PW-02, and PW-03
- Plant Fence Line – Monitoring Wells TW-20, TW-34, TW-35, and TW-39
- Southern Boundary – Monitoring Wells TW-53, TW-54, TW-55, and Harris Well
- Soda Creek (surface water) – Stations SC-01 (Soda Up) and SC-04 (Soda Down)

Mormon A Spring was identified by Monsanto as an alternate point of compliance for the Harris Well because the Harris Well may be completed within the transition zone between the UBZ and the LBZ. Thus, some of the constituents observed in sodic groundwater in LBZ-1 may occur in this well (Golder 2001).

Several sample locations have been established to monitor and evaluate discharges to surface water (Soda Creek), and effects of discharges on surface water quality. These sample locations are not point of compliance locations, but are used to evaluate water quality in Soda Creek. The sample locations for



surface water quality are shown on Figure 6. Photographs of the surface water sample locations are included in Appendix K.

All surface water and spring water quality samples collected in 2010 and prior years were unfiltered. Surface water and spring water quality samples collected starting in 2011 include a collection of filtered and unfiltered samples for metals analysis in accordance with the groundwater and surface water sampling work plan (Golder 2012a).

1.1 Report Organization

Sample collection activities carried out in June 2014 are summarized in Section 2.0. The results of the 2014 sampling are summarized in Section 3.0, including groundwater flow directions and significant changes in constituent concentrations or concentration trends. Section 4.0 presents a summary of the water quality data and chemical isopleth maps for 2014 concentrations of selected constituents.

Section 5.0 provides contact information in case there are any questions or need for additional information.

Section 6.0 provides a list of references used to compile this report.

Appendices A through I present time-history graphs for selected constituents and groundwater elevation hydrographs. Appendix J presents the data validation report for the analytical data from the 2014 sampling round. Photographs of surface water sampling locations are included in Appendix K.



2.0 SAMPLE COLLECTION AND ANALYTICAL ACTIVITIES

In June 2014, Golder Associates Inc. (Golder) collected site-wide groundwater level measurements and water quality samples per the annual sample collection requirements of the ROD. Sample collection occurred from June 3 to 14, 2014. Water quality samples were collected from 65 wells, 10 springs, and 17 surface water and non-contact cooling water locations during this period, as listed in Table 4. The 10 spring locations are to the south and southwest of the Plant. Calf Spring was not sampled in 2014 because the spring, which typically has very low flow (approximately 1 to 2 gallons per minute [gpm]), was dry. The 17 surface water locations include the non-contact cooling water discharge pipe at Soda Creek; the inlet to the non-contact cooling water pond (Pond Inlet); several stations along Soda Creek upstream and downstream of the Mormon Creek confluence; and upstream and downstream of a pond along the former trace of Little Spring Creek (Figure 6). In 2014, samples could not be collected from monitoring wells TW-63 and TW-64 because the groundwater level in the wells were below the pump intake depths because of decreased natural recharge.

Groundwater elevations were measured at all accessible monitoring wells during this period.

Quality control samples were collected throughout the sampling event, and include the following:

- Duplicate Samples – Field duplicate samples were collected at seven locations, representing at least 5% of all monitoring samples collected.
- Equipment Blank Samples – Equipment blank samples were collected from distilled water poured over or pumped through decontaminated non-dedicated sampling equipment. An equipment blank sample was collected from the temporary Grundfos pump in 2014.
- A field blank was collected by pouring the distilled water used for decontamination directly into sample bottles.
- Split Samples – Split samples were collected at six monitoring well locations, representing at least 5% of all monitoring samples collected. These samples were shipped to an alternate laboratory for the same analyses as the other samples.

Groundwater, surface water, and spring samples were collected using the procedures described in the Groundwater and Surface Water Sampling Work Plan (Golder 2012a, 2013a). All water samples were collected and analyzed for constituents listed in Table 5, per the requirements of the Sampling Plan and Quality Assurance Plan for the project (Golder 2012a).

The samples collected in June 2014 were shipped to the primary laboratory, SVL Analytical (SVL), in Kellogg, Idaho for the analyses listed in Table 5. In addition, split samples were shipped to IAS Envirochem in Pocatello, Idaho. Data validation was conducted on the data received from the laboratories to review and evaluate the procedures and methods used by the laboratories. Data validation evaluates the quality and quantity of the data received from the laboratories, and provides qualification of data that are outside of prescribed limitations (Appendix J).



3.0 2014 SAMPLING RESULTS

3.1 Groundwater Elevations and Flow Directions

The depth-to-groundwater measurements collected during the June 2014 sampling round were converted to groundwater elevations based on surveyed measurement point information. The groundwater elevations are presented in Table 6. Table 6 also summarizes flows measured at each spring. Figures 7 and 8 provide groundwater contour maps showing the interpreted directions of groundwater flow underlying the Plant for the UBZ and the LBZ, respectively, in June 2014. Groundwater elevation hydrographs and surface water discharge hydrographs are included in Appendix I.

The groundwater flow patterns in the UBZ and LBZ observed during June 2014 are generally to the south, similar to the groundwater flow patterns previously documented in previous annual and five-year review reports, with slight variations in groundwater elevations (and spring discharge) because of annual differences in recharge from precipitation and snowmelt.

3.2 Analytical Results

This section describes the analytical results from the 2014 sampling, particularly significant changes in concentrations or concentration trends in comparison with previous years.

Field water quality parameters measured at the end of purging (for wells) or immediately prior to sampling (for surface water and spring samples) are summarized in Table 7. The results of the laboratory analyses at the 2014 sample locations are presented in Table 8a for groundwater and Table 8b for surface water, springs, and non-contact cooling water. Time-history charts for the sampled wells and springs are presented in Appendices A through H.

Concentrations for the constituents of concern and chloride, molybdenum, and sulfate at all groundwater, spring, and surface water sampling locations are shown on Figures 9 through 24:

- Cadmium is shown on Figures 9 (north sheet) and 10 (south sheet).
- Fluoride is shown on Figures 11 (north sheet) and 12 (south sheet).
- Manganese is shown on Figures 13 (north sheet) and 14 (south sheet).
- Nitrate is shown on Figures 15 (north sheet) and 16 (south sheet).
- Selenium is shown on Figures 17 (north sheet) and 18 (south sheet).
- Chloride is shown on Figures 19 (north sheet) and 20 (south sheet).
- Molybdenum is shown on Figures 21 (north sheet) and 22 (south sheet).
- Sulfate is shown on Figures 23 (north sheet) and 24 (south sheet).



Validation of the 2014 data is presented in Appendix J. Selected data were qualified as estimated ("J" or "UJ" qualifier). The data were generally qualified based on the results of laboratory quality control procedures. The data qualifications do not affect the usability of the data.

3.3 Constituent Concentrations in Point of Compliance Locations

This section summarizes the results for the point of compliance locations. Table 9 summarizes the analytical results for the point of compliance locations and compares the 2014 results with the remediation goal for each constituent.

The remediation goal was met for cadmium (0.005 mg/L) at all point of compliance locations with the exception of:

- PW-01 (0.041 mg/L)
- PW-02 (0.0108 mg/L)
- Mormon A Spring (0.0141 mg/L)
- TW-20 (0.0091 mg/L)
- TW-39 (0.0248 mg/L)

The remediation goal for fluoride (4 mg/L) was met at all point of compliance locations with the exception of TW-39 (4.63 mg/L). The remediation goal for manganese (0.18 mg/L) was met at all point of compliance locations. The remediation goal for nitrate (10 mg/L – N) was met at all point of compliance locations with the exception of TW-20 (14.3 mg/L).

Selenium concentrations exceeded the remediation goal (0.05 mg/L) at the following locations:

- Harris Well (0.316 mg/L)
- Mormon A Spring (0.280 mg/L)
- TW-20 (0.240 mg/L)
- TW-39 (0.397 mg/L)
- TW-53 (0.259 mg/L)
- TW-54 (0.377 mg/L)

Selenium met the remediation goal at the Soda Creek compliance locations (SC-01 and SC-04), but exceeded the Idaho aquatic life chronic criteria for selenium of 0.005 mg/L at the Soda Down (SC-04) station (0.032 mg/L).

Concentrations of the constituents of concern (and chloride, molybdenum, and sulfate) and constituent concentration trends are similar to those observed in 2013 (Golder 2014).



3.4 Constituent Concentration Trends in Other Wells and Springs

Water quality monitoring is conducted at several locations in the Plant site and at locations south of the Plant that are not point of compliance locations (Figures 2 and 6). This section also discusses concentrations in TW-71 through TW-79 installed in the Plant in late 2013 and early 2014, and in the Independent Drilling well and Little Spring Pond, both sampled for the first time in June 2013. The Independent Drilling well is located in Soda Springs, about 1.6 miles south of the South Plant Fence Line. Little Spring Pond is located about 380 feet southeast of the southeast corner of Monsanto property (Figure 6). Little Spring Pond is fed by discharge from several springs in the Kelly Park area.

The June 2014 groundwater concentrations for non-point of compliance wells, surface water, and springs are summarized in Table 8a (groundwater) and Table 8b (surface water and springs). Appendices A through H contain chemical hydrographs for the constituents of concern, and chloride, molybdenum, and sulfate for all sampling locations with the exception of the wells in Soda Springs sampled for the first time in 2013.

3.4.1 Wells in the Plant

The 2014 constituent concentration and concentration trends in the wells inside the Plant Fence Line are generally similar to those observed in 2013. The 2013 sulfate concentration in LBZ-4 well TW-18 was 429 mg/L; the June 2014 sulfate concentration is 527 mg/L (Table 8a and Appendix H - Figure H-10). The June 2014 sulfate concentration was confirmed in a sample collected in September 2014 (504 mg/L). The historic sulfate concentrations in TW-18 were all less than 100 mg/L. Chloride concentrations also increased in 2013 and 2014 in TW-18 (62 mg/L and 74 mg/L; respectively) compared to historic concentrations of less than 25 mg/L (Appendix F - Figure F-10). Manganese concentrations in TW-18 have also increased in 2013 and 2014, to about 0.7 mg/L. The historic manganese concentration in TW-18 was about 0.4 mg/L (Appendix C – Figure C-10). The reason for the increase in these constituents is uncertain; the concentrations of sulfate in 2013 and 2014 in TW-18 are higher than the concentrations in adjacent and shallower UBZ-4 γ3 wells TW-16 and TW-17 (about 180 to 225 mg/L in 2014).

Selenium concentrations in TW-17 (Northwest Pond) have increased from less than 0.01 mg/L prior to 2009 to 0.129 mg/L in 2014 (Appendix D – Figure D-10). With the exception of a long-term increase in manganese concentrations (Appendix C – Figure C-10), concentrations of the constituents of concern and chloride, sulfate, and molybdenum are decreasing. The reason for the increase in selenium concentrations is unknown.

Sulfate concentrations have been increasing in TW-50 since about 2007 (337 mg/L), reaching 590 mg/L in 2013. In 2014, the sulfate concentration increased to 962 mg/L. The reason for the significant



increase in sulfate between 2013 and 2014 is unknown; the 2014 sulfate concentration will be confirmed during the 2015 annual sampling.

3.4.2 Wells South of the Plant

The 2014 constituent concentration and concentration trends in the wells south of the Plant are generally similar to those observed in 2013. The 2014 sampling round confirmed constituent concentrations in the monitoring wells drilled in 2011 (TW-63 through TW-70, inclusive). Wells TW-63 and TW-64 could not be sampled because the groundwater level at each well was below the pump intake.

3.4.3 Wells in Soda Springs

One well was sampled in the City of Soda Springs in 2014 (Independent Drilling well; Figure 6). The Independent Drilling well is used for clean-up and filling tanks for drilling water. The office at the Independent Drilling shop is connected to the City of Soda Springs municipal water supply.

The 2014 sample results for the Independent Drilling well confirm the results of the 2013 sampling. Cadmium and manganese were not detected (less than 0.00068 mg/L and less than 0.0013 mg/L; respectively). Fluoride was detected at 2.68 mg/L, nitrate was detected at 2.01 mg/L, and selenium was detected at an estimated concentration of 0.0015 mg/L.

3.4.4 Springs and Surface Water

Spring and surface water sampling locations south of the Plant are shown on Figures 2 and 6. Constituent concentrations in springs and surface water are shown on Figures 9 through 24, inclusive. Calf Spring was dry and thus was not sampled in 2014. Calf Spring typically flows at a low rate of about 1 to 2 gpm. Flows from other springs and in Soda Creek in 2014 were generally lower than in 2013 (Table 10 and Appendix I).

Selenium concentrations in surface water are below the Idaho aquatic standard of 0.005 mg/L with the exception of stations SC-03, SC-04, SC-06, and SC-07 which are all located between the power diversion weir and the power return (Table 8b) in the flow impaired reach of the creek. Downstream of the power return, selenium concentrations in Soda Creek are less than 0.005 mg/L (Figure 18).

Two samples were collected from Little Spring Pond (Figure 6). Concentrations of the constituents of concern were either not detected (cadmium less than 0.00068 mg/L and manganese less than 0.0013 mg/L) or detected at concentrations well below the remediation goals (fluoride [0.24 to 0.27 mg/L], nitrate [0.24 to 0.49 mg/L], and selenium [estimated concentrations of 0.0011 to 0.0013 mg/L]; Table 8b).



4.0 OVERALL ASSESSMENT SUMMARY

This section summarizes the remediation goals at the Monsanto Plant site and trends in constituent concentrations.

4.1 Remediation Goals

The following is a summary of the remediation goals for the point of compliance locations (wells and surface water) located at the southern boundary or south of the Monsanto Plant. Table 9 provides a summary of the results from all point of compliance locations in June 2014 compared to corresponding remediation goals.

- Cadmium is below the remediation goal of 0.005 mg/L in the point of compliance locations in 2014 except in PW-01, PW-02, TW-20, and TW-39. Cadmium is also above the remediation goal at Mormon A Spring.
- Fluoride is below the remediation goal of 4 mg/L in all point of compliance locations in 2014 with the exception of TW-39.
- Manganese is at or below the remediation goal of 0.18 mg/L in all point of compliance locations in 2014.
- Nitrate as N is below the remediation goal of 10 mg/L in all point of compliance locations in 2014 with the exception of TW-20.
- Selenium is below the remediation goal of 0.05 mg/L in 2014 in point of compliance wells PW-01, PW-02, PW-03, TW-34, TW-35, TW-55, and in Soda Creek upstream (station SC-01) and downstream (station SC-04) of the non-contact cooling water discharge. In 2014, selenium exceeds the remediation goal of 0.05 mg/L in point of compliance wells TW-20, TW-39, TW-53, TW-54, and in the Harris Well. The selenium concentration in Mormon A Spring is also above the remediation goal.

Short-term (2010 through 2014, inclusive) constituent concentration trends at point of compliance locations are summarized in Table 11. Constituent concentration trends in the point of compliance locations are similar to the concentrations trends in 2013 reported in Golder (2014).

4.2 Assessment of 2014 Water Quality Data

Short-term constituent concentration trends in non-point of compliance locations are summarized in Table 12. Constituent concentration trends in the non-point of compliance locations are similar to the concentrations trends in 2013 reported in Golder (2014). Figures 9 through 18, inclusive, show concentrations of the constituents of concern in the UBZ, springs, and surface water in June 2014. Figures 19 through 24, inclusive, show concentrations of chloride, molybdenum, and sulfate in the UBZ, springs, and surface water in 2014. The chemical concentrations shown on the isopleth maps include the concentrations in wells completed in the UBZ γ3, γ4, and γ5 interflow zones for reference. In some cases, there are two wells completed in different interflow zones at the same location, and the concentrations are shown for both wells (such as for TW-16 and TW-17, or TW-20 and TW-34). In other cases, there may be two nearby wells located in a former source area and completed in the same interflow zone with



variable concentrations (such as TW-75 and TW-76). The isopleth maps therefore show the overall distribution of the constituents in the UBZ regardless of interflow zone, but are generally contoured to reflect the highest concentrations, which for most constituents and most locations are in the uppermost water bearing interflow zone. Thus, in some locations where nested wells are completed in several UBZ interflow zones, the contours reflect the concentration in the uppermost water bearing zone (unless concentrations are affected by upwelling of sodic groundwater, such as areas of UBZ-1 where elevated manganese concentrations are observed such as in wells TW-34 and TW-35 at the Plant Fence Line and TW-60 and TW-61 south of the Plant). In some areas, sample locations were either dry (Calf Spring) or could not be sampled because groundwater levels declined below the base of the pump (TW-63 and TW-64). In these areas, the contours for nitrate, selenium, chloride, and sulfate reflect the concentrations when the wells (or spring) were last sampled (June 2012).

In UBZ-2 and UBZ-4, isopleths have also been interpreted based on the estimated footprint of the former source areas. In the area of the Old UFS Ponds, the constituent plumes extend from portions of the ponds in both UBZ-2 and UBZ-4 and may be continuous. However, there is little if any groundwater flow from the UBZ-4 to UBZ-2 in the area of the Old UFS Ponds and Tailings Pond as demonstrated by the 20 to 30 foot difference in groundwater elevations (indicative of a low-permeability fault barrier) between the UBZ-4 and UBZ-2 (Figure 7).

4.2.1 Upper Basalt Zone-4

Concentrations some of the UBZ-4 source areas (Old Hydroclarifier, UFS Piles, Old UFS Ponds, and Northwest Pond) are generally decreasing (Table 12). Thus, concentrations in downgradient wells are expected to continue to decrease with time, consistent with natural attenuation. Constituent concentrations trends in the portion of the Old UFS Ponds in UBZ-4 are unknown but are expected to be decreasing based on the observed decreasing trend in UBZ-2 near the Old UFS Ponds.

Table 13 summarizes the decrease from historical maximum concentrations to 2014 in the UBZ-4 source areas (Northwest Pond, UFS Piles, and Old Hydroclarifier) and downgradient wells (Plant Production wells). For most locations and constituents, the 2014 concentrations are lower than the historical high concentrations with the exception of selenium and manganese in TW-17 and sulfate, chloride, and manganese in TW-18.

Chemical isopleth maps for the constituents of concern, and for chloride, molybdenum, and sulfate in June 2014 are shown on Figures 9 through 24, inclusive. The isopleth maps were developed based on the source locations, observed constituent concentrations, and interpreted groundwater flow directions in June 2014, including the cone of depression created by the pumping of the Plant Production Wells and the interpretation of the Monsanto Fault as a groundwater flow barrier in the Plant area (Golder 1995). TW-77 is shown inside the UBZ cadmium (Figure 9), nitrate (Figure 15), and selenium (Figure 17) plumes



despite having concentrations of these constituents below the respective remediation goals. TW-77 is not completed in the shallowest saturated interflow zone (as are most of the other wells in the UBZ-4 source area); the chemical isopleths for these constituents were developed using concentrations in nearby or downgradient wells (such as TW-71, TW-78, and TW-79).

The chemical isopleth maps indicate the extent of groundwater with constituents of concern concentrations above the remediation goals in UBZ-4 is between the Northwest Pond and Old Hydroclarifier source areas, and the portion of the Old UFS Ponds in UBZ-4, and production well PW-03. Affected groundwater in UBZ-4 is contained by pumping of the Plant production wells and has not migrated outside of the Plant boundaries based on groundwater quality in TW-11 and TW-38. The 2014 isopleths in UBZ-4 are slightly different than the 2002 and 2007 isopleths presented in the Second Five-Year Review Report (Golder 2008a) and the 2013 isopleths because of new data from the monitoring wells installed in 2013 and 2014 (TW-71 through TW-79, inclusive). The isopleth maps indicate the plumes from the Northwest Pond and Old Hydroclarifier are stable or have decreased slightly and are being contained by pumping from PW-01, PW-02, and PW-03 and have not migrated from UBZ-4. Additional monitoring is required to evaluate the plume from the portion of the Old UFS Ponds in UBZ-4.

4.2.2 Upper Basalt Zone-1

The water quality data from UBZ-1 wells TW-10 and TW-69, and from the Southwest Spring west of the Plant (UBZ-1) suggests that there is some groundwater flow across the Subsidiary Fault from the UBZ-2 source areas (the Old UFS Ponds and Tailings Pond) to UBZ-1. This is suggested by elevated concentrations of selected constituents of concern in TW-69 in 2014, such as cadmium (0.138 mg/L), fluoride (3.64 mg/L), and selenium (0.181 mg/L). In comparison, cadmium was detected in TW-68 at an estimated concentration of 0.00086 mg/L, selenium was not detected (less than 0.00052 mg/L), and fluoride was detected at an estimated concentration of 0.53 mg/L; similar to the concentration in UBZ-2 background well TW-57 (0.58 mg/L). Additional sampling is required to confirm concentration trends in TW-68 and TW-69. Elevated concentrations of fluoride (2.67 mg/L) and selenium (0.267 mg/L) were also observed in TW-10 in June 2014.

Table 14 summarizes the decrease from historical maximum concentrations to 2014 in the UBZ-1 wells and springs. For most locations and constituents, the 2014 concentrations are lower than the historical high concentrations.

Chemical isopleth maps for the constituents of concern, and for chloride, molybdenum, and sulfate in June 2014 are shown on Figures 9 through 24, inclusive. Figures 9 and 10 show cadmium concentrations in the UBZ. Cadmium concentrations above the remediation goal extend from the Old Underflow Solids Pond and Tailings Pond area southwest across the Subsidiary Fault to TW-69, but do not extend to Southwest Spring or TW-10. Figure 11 indicates fluoride above the remediation goal likely



extends from the Old Underflow Solids Ponds and Tailings Pond southwest of the Subsidiary Fault, but does not extend to TW-69, Southwest Spring, or TW-10. However, fluoride concentrations in these wells are elevated (about 1 to 3 mg/L) compared to background wells, such as TW-57.

The area of elevated manganese associated with wells TW-60 and TW-61 south of the Plant (Figures 13 and 14) reflects the upwelling of sodic groundwater in this area.

Figures 15 and 16 show nitrate concentrations in June 2014. Nitrate is below the remediation goal in UBZ-1 with the exception of an area west of Government Dam Road between Homestead Spring and Mormon C Spring where nitrate exceeds the remediation goal. This includes shallow monitoring wells TW-63 and TW-64 (based on 2012 concentrations) and Homestead Spring. Elevated nitrate concentrations in this area appear to be the result of agricultural activities in the fields west of Government Dam Road.

Figures 17 and 18 indicate that groundwater with selenium concentrations above the remediation goal in UBZ-1 extends to the south Plant Fence Line (Well TW-10). Groundwater with selenium concentrations above the remediation goal also extends southwest of the Subsidiary Fault to TW-69, but does not extend to Southwest Spring, where selenium concentrations are about 0.02 mg/L. South of Hooper Road in UBZ-1, groundwater with selenium above the remediation goal discharges to Mormon A, B, and C Springs, Calf Spring (based on historic data; Calf Spring was dry in 2013 and 2014), and to Mormon Creek (Figures 17 and 18). Shallow groundwater is below the selenium remediation goal at Homestead Spring.

4.2.3 Upper Basalt Zone-2

The primary UBZ-2 source areas (Old Underflow Solids Pond and Tailings Pond) were closed in the 1980s. Concentrations in one of the UBZ-2 source areas (Old UFS Ponds) are generally decreasing. Constituent concentration trends near the Tailings Pond are also decreasing based on concentration in TW-22 and TW-24. Thus, concentrations in downgradient wells are expected to decrease in the future, consistent with natural attenuation. There may be some short-term concentration increases in the source area as a result of increased infiltration of precipitation during periods of above-average precipitation.

Table 15 summarizes the decrease from historical maximum concentrations to 2014 in the UBZ-2 wells. For most locations and constituents, the 2014 concentrations are lower than the historical high concentrations.

Chemical isopleth maps for the constituents of concern, and for chloride, molybdenum, and sulfate in June 2014 are shown on Figures 9 through 24, inclusive. Figure 9 indicates that groundwater with cadmium concentrations above the remediation goal in UBZ-2 extends to the Plant Fence Line (TW-20 and TW-39), but does not extend to the Southern Boundary Wells, similar to the 2007 isopleth map



presented in the Second Five Year Review Report (Golder 2008a), and a slight decrease in area from the 2002 isopleth map, when cadmium concentrations above the remediation goal extended to TW-54.

The extent of groundwater with selenium above the remediation goal in 2014 is similar to 2013 (Golder 2014) but increased in comparison to 2007 (Golder 2007b, 2008b). The extent of groundwater with selenium concentrations above the remediation goal in 2014 (Figures 17 and 18) in UBZ-2 extends south of the South Plant Fence Line, beyond the wells TW-53 and TW-54 to monitoring wells TW-62 and TW-59, and south to the Monsanto property line on the east side of Government Dam Road to well TW-65, and west of Government Dam Road to wells TW-63 and TW-64 (Figure 18; based on concentrations in 2012 in TW-63 and TW-64). Groundwater from wells TW-59, TW-62, TW-63, TW-64, and TW-65 also contains elevated concentrations of nitrate as N, chloride, and sulfate (Figures 16, 20, and 24, respectively). The concentration of nitrate as N remains below the remediation goals with the exception of wells TW-63 and TW-64 (2012 data) that are likely affected by agricultural activity. Concentrations of cadmium, fluoride, and manganese also remain below the respective remediation goals in these wells.

The 2014 distribution of fluoride (Figures 11 and 12), nitrate (Figures 15 and 16), and manganese (Figures 13 and 14) is similar to that reported for 2013 (Golder 2014). The concentrations of these constituents are above the remediation goals in the area of the Old UFS Ponds and Tailings Pond, but the extent of groundwater with concentrations of fluoride, manganese, and nitrate above the remediation goals does not extend south of the South Plant Fence Line, with the exception of nitrate west of Government Dam Road in wells TW-63 and TW-64 (2012 data) that are likely affected by agricultural activity. Some UBZ-2 groundwater with slightly elevated (but below the remediation goal) concentrations of fluoride and nitrate discharges at Mormon A, B, and C Springs, Calf Spring, and to Mormon Creek. Groundwater with manganese above the remediation goal occurs in TW-60 and TW-61 west of Government Dam Road, and elevated (but below the remediation goal) concentrations of manganese occur at the South Plant Fence Line in TW-34 and WT-35 (Figure 13). The elevated manganese concentrations result from upwelling of sodic groundwater at these locations.

4.3 Soda Creek

Concentrations of the constituents of concern at the point of compliance locations (SC-01 and SC-04) were below the remediation goals in 2014 (Table 9). The constituents of concern also were below the remediation goals at the other sampling stations on Soda Creek. Selenium was detected above the chronic aquatic standard of 0.005 mg/L at stations SC-03 (Soda Mid), SC-04 (Soda Down), SC-06 (Soda at Property Line), and SC-7 (Soda Upstream Power Return). These stations are all located between the power diversion and power return (Figure 18) in the flow impaired portion of the creek. Below SC-07, where water from the power canal is returned to Soda Creek, selenium was not detected at concentrations below the chronic aquatic life standard of 0.005 mg/L.



5.0 RECOMMENDATIONS

The following are recommendations for the annual sampling in 2015.

- Include TW-28, located in the northwest corner of the Plant, upgradient of the Northwest Pond, and completed in the UBZ-4 γ3 zone in the annual sampling program as an additional background well. TW-28 is completed in the same interflow zone as TW-17 and will provide information on background water quality and help evaluate manganese and selenium concentrations in the UBZ-4 γ3 zone.



6.0 CLOSING

Please contact us if you have any questions or need additional information.

GOLDER ASSOCIATES INC.

A handwritten signature of Michael Klisch.

Michael Klisch, LHG
Senior Project Hydrogeologist

A handwritten signature of David Banton.

David Banton, LHG, RG
Principal Hydrogeologist

MK/DB/ks



7.0 BIBLIOGRAPHY

- Golder Associates Inc. (Golder). 1985. *Report to Monsanto Industrial Chemical Company on Hydrogeological Investigation, Soda Springs Plant Site, Soda Springs, Idaho, Volumes 1-3*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 1992. *Phase I Remedial Investigation/Feasibility Study, Preliminary Site Characterization Summary Report for the Soda Springs Elemental Phosphorus Plant*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington, April 23.
- Golder. 1993. *Phase II Remedial Investigation Memorandum on Fate and Transport Modeling, Monsanto Elemental Phosphorus Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington, October 5.
- Golder. 1995. *Phase II Remedial Investigation Report for the Soda Springs Elemental Phosphorus Plant*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington, November 21.
- Golder. 1998. *May 1998 Groundwater Status – Solutia Soda Springs Site*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 1999. *Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho, Draft 1999 Summary Report*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 2000. *Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho, Draft 2000 Summary Report*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 2001. *Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho, Draft 2001 Summary Report*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 2002. *Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho, Draft 2002 Summary Report*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 2003a. *Five-Year Review Report for Groundwater Conditions at the Monsanto Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 2003b. *Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho, Draft 2003 Summary Report*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 2004. *Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho, Draft 2004 Summary Report*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 2006a. *Monsanto Soda Springs Plant - Geophysical Survey South of Plant Site to Locate New Monitoring Wells*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.
- Golder. 2006b. *Work Plan for Drilling and Monitoring Well Installation Monsanto Soda Springs Plant*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.



Golder. 2007a. *Well Completion Report, Monitoring Wells TW-59, TW-60, TW-61 and TW-62, Monsanto Soda Springs Plant*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2007b. *2007 Summary Report, Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2008a. *Second Five-Year Review Report for Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2008b. *2008 Summary Report, Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2009. *2009 Summary Report, Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2010a. *Response to CH2M-Hill Comments on 2009 Summary Report on Groundwater Conditions at the Monsanto Soda Springs Plant*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2010b. *2010 Summary Report, Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2011a. *Monitoring Well Drilling and Installation, Monsanto Soda Springs Idaho Plant*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2011b. *2009 Summary Report, Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2012a. *Groundwater and Surface Water Sampling Work Plan, Monsanto Soda Springs Idaho Plant*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2012b. *2011 Summary Report, Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Golder. 2013a. 2013 Groundwater and Surface Water Sampling – Monsanto Soda Springs Idaho Plant. May 7.

Golder. 2013b. Source Area Characterization – UBZ-2, Phase I, Monsanto Soda Springs Idaho Plant. July 26.

Golder. 2013c. *2012 Summary Report, Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.



Golder. 2014. *2013 Summary Report, Groundwater Conditions at the Soda Springs Plant, Soda Springs, Idaho*, prepared for Monsanto Chemical Company by Golder Associates, Inc., Redmond, Washington.

Idaho Administrative Procedures Act (IDAPA). 2010. State of Idaho Water Quality Standards, 58.01.02.

United States Environmental Protection Agency (EPA). 1997. *Record of Decision, Monsanto Chemical Company Superfund Site, Caribou County, Idaho*, U.S. Environmental Protection Agency Region 10, Office of Environmental Cleanup, Seattle, Washington, April 30.

TABLES

Table 1: Well Completion Summary

Well	Formation	Measuring Point (MP) (per RI Report)	MP Elevation (feet amsl)	Top of Monitored Interval (feet bgs)	Bottom of Monitored Interval (feet bgs)	Hole Diameter (inches)	Casing Diameter (inches)	SP Northing	SP Easting	Comment
Harris	UBZ-2 γ4	Top of steel 1" pipe	5,877.56	58.0	62.0	6	6	810,604.17	368,292.54	MP = 4.05' above well-house floor
Independent Drilling	UBZ	Ground elevation	5,828.00	60.0	80.0	8	6			Elevation based on Google Earth
Lewis Well	UBZ-2 γ3 and γ4?	Top of Well Cap	5,864.35	85.0	105.0	6	6	811,842.41	365,997.56	MP is top of threaded access port
SO2 Landfill North	UBZ-4 γ3	Top of coupling	5,988	68	88	8	4	812,359.43	376,550.01	Estimated location and elevation
SO2 Landfill South	UBZ-4 γ3	Top of coupling	5,994	60	80	8	4	811,626.65	375,601.04	Estimated location and elevation
TW-07	UBZ-1 γ3	Top of PVC well cap	5885.11	41.8	61.8	8	5	810,324.58	368,978.97	Top of PVC well cap
TW-08	UBZ-1 γ3	Top of PVC well cap	5,884.88	76.2	91.2	8	4	810,313.14	368,978.63	Top of PVC well cap
TW-10	UBZ-1 γ5	Top of seal	5,885.53	19.6	25.6	8	4	810,319.94	368,964.38	Top of seal = 0.05' above TOC
TW-11	LBZ-3 γ2	Top of coupling	5,938.03	129.1	138.5	8	4	812,634.95	368,960.72	Top of coupling = 0.25' above TOC
TW-12	UBZ-3 γ3	Top of seal	5,939.23	88.6	103.8	8	4	812,634.22	368,992.01	Top of seal = 0.07' above TOC
TW-15	UBZ-4 flow V?	Top of seal	5,988.27	50.4	62.4	8	4	814,407.29	374,922.27	Top of seal = 0.04' above TOC
TW-16	UBZ-4 γ3	Top of seal	5,998.39	69.1	78.6	8	4	810,520.24	374,516.21	Top of seal = 0.04' above TOC
TW-17	UBZ-4 γ3	Top of seal	5,998.33	98.5	117.5	8	4	810,540.44	374,514.03	Top of seal = 0.04' above TOC
TW-18	LBZ-4	Top of seal	5,996.89	221.8	240.8	8	4	810,539.96	374,495.53	Top of seal = 0.04' above TOC
TW-20	UBZ-2 γ4	Top of seal	5,893.37	38.2	46.4	8	4	811,456.50	368,950.07	Top of seal = 0.05' above TOC
TW-22	UBZ-2 γ4	Top of seal	5,954.70	106.4	114.3	8	4	810,233.46	371,395.79	Top of seal = 0.05' above TOC
TW-24	UBZ-2 γ4a	Top of PVC casing	5,954.43	75.3	94.3	8	4	810,226.08	371,410.50	
TW-26	UBZ-4 γ2	Top of seal	5,991.42	139.0	145.0	8	4	811,217.20	372,192.52	Top of seal = 0.04' above TOC
TW-29	UBZ-4 γ3	Top of coupling	5,989.59	42.7	49.7	10	4	810,140.16	375,446.47	Top of coupling = 0.27' above TOC
TW-30	UBZ-4 γ3	Top of coupling	5,992.73	64.7	71.7	8	4	811,746.84	373,569.07	Top of coupling = 0.25' above TOC
TW-33	UBZ-4 γ4	Top of coupling	5,975.68	69.1	77.1	8	4	813,652.34	372,501.57	Top of seal = 0.07' above TOC
TW-34	UBZ-2 γ3	Top of coupling	5,893.43	69.9	76.4	8	4	811,449.59	368,968.55	Top of coupling = 0.27' above TOC
TW-35	UBZ-2 γ3	Top of seal	5,897.16	73.5	86.0	8	4	811,029.41	369,010.93	Top of seal = 0.04' above TOC
TW-37	UBZ-2 γ4	Top of seal	5,959.17	96.3	102.9	8	4	810,198.46	372,811.83	Top of seal = 0.03' above TOC
TW-38	UBZ-3 γ3	Top of PVC casing	5,972.91	92.7	104.7	8	4	812,476.80	370,421.05	
TW-39	UBZ-2 γ4	Top of seal	5,897.07	50.6	58.1	8	4	811,014.84	369,011.63	Top of seal = 0.04' above TOC
TW-40	UBZ-4 γ3	Top of PVC casing	5,989.94	84.3	91.3	8	4	811,709.93	373,097.04	Pump out of well
TW-41	UBZ-4 γ3	Top of coupling	5,994.31	57.9	70.9	8	4	811,574.64	373,480.19	Top of coupling = 0.3' above TOC
TW-42	UBZ-4 γ3	Top of PVC casing	5,990.07	79.2	91.2	8	4	811,792.90	373,153.22	Pump out of well
TW-43	UBZ-4 γ3	Top of PVC casing	5,989.08	82.4	91.4	8	4	811,650.12	373,115.88	Pump out of well
TW-44A	LBZ-4	Top of seal	5,989.41	131.0	150.0	8	4	811,650.12	373,115.88	Top of seal = 0.04' above TOC
TW-45	LBZ-2 γ2	Top of coupling	5,959.17	216.8	230.8	8	4	810,190.99	372,802.26	Top of coupling = 0.26' above TOC
TW-48	UBZ-4 γ3	Top of coupling	5,989.40	67.3	73.3	8	4	811,931.04	375,495.21	Top of coupling = 0.25' above TOC
TW-49	UBZ-4 γ3	Top of seal	5,996.94	75.2	84.2	8	4	812,024.36	374,905.43	Top of seal = 0.04' above TOC
TW-50	UBZ-4 γ3	Top of seal	5,992.94	73.8	90.8	8	4	811,993.59	373,824.33	Top of seal = 0.04' above TOC
TW-53	UBZ-1 γ5	Top of coupling	5,880.65	19.5	34.0	8	4	810,658.29	368,025.24	Top of coupling = 0.26' above TOC
TW-54	UBZ-2 γ4	Top of coupling	5,889.21	39.3	54.3	8	4	811,193.39	368,027.03	Top of coupling = 0.25' above TOC
TW-55	UBZ-2 γ3	Top of coupling	5,886.58	53.5	69.0	8	4	811,692.62	368,024.88	Top of coupling = 0.25' above TOC
TW-56	UBZ-3 γ3	Top of coupling	5,910.20	86.8	100.3	8	4	812,228.93	367,953.73	Top of coupling = 0.2' above TOC

Table 1: Well Completion Summary

Well	Formation	Measuring Point (MP) (per RI Report)	MP Elevation (feet amsl)	Top of Monitored Interval (feet bgs)	Bottom of Monitored Interval (feet bgs)	Hole Diameter (inches)	Casing Diameter (inches)	SP Northing	SP Easting	Comment
TW-57	UBZ-2 γ5?	Top of coupling	5,952.74	23.2	37.3	8	4	809,953.02	374,340.56	Top of coupling = 0.2' above TOC
TW-58	UBZ-2 γ4	Top of Casing	5,892.74	36.3	51.7	12	8	811,447.28	368,956.44	
TW-59	UBZ-2 γ4	Top of coupling	5,858.64	29.0	42.5	8	4	810,806.49	365,638.28	Top of seal = 0.04' above TOC
TW-60	UBZ-1 γ4	Top of coupling	5,869.42	43.0	56.0	8	4	809,897.90	366,102.95	Top of seal = 0.04' above TOC
TW-61	UBZ-1 γ4	Top of coupling	5,878.75	61.5	77.0	8	4	809,917.50	367,078.32	Top of seal = 0.04' above TOC
TW-62	UBZ-2 γ4	Top of coupling	5,881.31	46.6	62.5	8	4	811,273.34	366,921.54	Top of seal = 0.04' above TOC
TW-63	UBZ-2 γ5	Top of seal	5,878.91	21.0	33.0	8	4	809,917.69	367,092.03	Top of seal = 0.04' above TOC
TW-64	UBZ-1 γ5	Top of seal	5,869.73	23.0	38.0	8	4	809,897.73	366,091.10	Top of seal = 0.04' above TOC
TW-65	UBZ-2 γ5	Top of seal	5,816.42	23.0	36.0	8	4	810,820.24	363,711.62	Top of seal = 0.04' above TOC
TW-66	UBZ-2 γ4	Top of seal	5,816.22	47.0	53.0	8	4	810,823.04	363,674.51	Top of seal = 0.04' above TOC
TW-67	UBZ-2 γ4/γ3	Top of seal	5,817.75	25.0	46.0	8	4	811,476.58	363,722.03	Top of seal = 0.04' above TOC
TW-68	UBZ-1 γ5	Top of seal	5,924.73	36.0	53.0	8	4	809,006.03	370,934.57	Top of seal = 0.04' above TOC
TW-69	UBZ-1 γ5	Top of seal	5,892.45	17.5	25.0	8	4	809,407.26	369,732.69	Top of seal = 0.04' above TOC
TW-70	UBZ-2 γ3	Top of seal	5,882.28	71.0	90.0	8	4	811,272.68	366,933.69	Top of seal = 0.04' above TOC
TW-71	UBZ-2 γ4	Top of seal	5,988.40	94.0	127.0	9	4	810,391.48	373,259.67	Top of seal = 0.04' above TOC
TW-72	UBZ-2 γ4	Top of seal	5,974.55	95.0	115.0	9	4	810,484.75	372,663.52	Top of seal = 0.04' above TOC
TW-73	UBZ-2 γ4	Top of seal	5,970.33	81.0	94.4	9	4	810,422.97	372,329.55	Top of seal = 0.04' above TOC
TW-74	UBZ-4 γ3	Top of seal	6,009.20	71.0	90.5	9	4	810,480.38	374,151.37	Top of seal = 0.04' above TOC
TW-75	UBZ-2 γ4a	Top of seal	5,955.80	75.0	93.5	9	4	810,326.57	371,565.67	Top of seal = 0.04' above TOC
TW-76	UBZ-2 γ4a	Top of seal	5,959.67	75.0	93.0	9	4	810,366.17	371,830.88	Top of seal = 0.04' above TOC
TW-77	UBZ-4 γ2	Top of seal	5,991.02	122.0	142.0	9	4	810,744.27	373,005.12	Top of seal = 0.04' above TOC
TW-78	UBZ-4 γ3	Top of seal	5,986.32	79.0	103.0	9	4	810,891.47	372,456.65	Top of seal = 0.04' above TOC
TW-79	UBZ-4 γ3	Top of seal	6,000.98	96.0	105.0	9	4	811,145.27	371,728.53	Top of seal = 0.04' above TOC

Notes:

TBD - To be determined

Table 2: History of Groundwater Investigations at Monsanto Plant

Date	Activity	Conducted By/For	Description
1978	Monsanto well installation	Monsanto	Installed 5 groundwater monitoring wells
1982	Monsanto well installation	Monsanto	Installed 2 additional wells, initiated spring sampling
1984	Groundwater Investigation	Golder/Monsanto	Installed 31 groundwater monitoring wells, characterized constituent plumes, identified sources of constituents
1988	CERCLA Site Inspection	Ecology & Environment/EPA	Groundwater sampling and analysis
1991 to 1998	Bi-annual groundwater monitoring	Golder/ Monsanto	Monsanto samples between 50 and 60 monitoring wells, offsite wells, and springs every 6 months
1992	Phase I Remedial Investigation	Golder/Monsanto	Remedial Investigation report for Monsanto Plant site
1993	Phase II Remedial Investigation Fate and Transport Model	Golder/Monsanto	Groundwater model to characterize fate and transport of constituents in groundwater
1995	Solute Transport Model	Golder/Monsanto	Solute transport model to predict the fate and transport of constituents in groundwater
1995	Phase II Remedial Investigation	Golder/Monsanto	Phase II Remedial Investigation
1998 to date	Annual groundwater sampling	Golder/Monsanto	Monsanto samples between 50 and 60 monitoring wells, offsite wells, springs, and surface water annually
2003	Solute Transport Model	Golder/Monsanto	Updated solute transport model to predict the fate and transport of constituents in groundwater, using additional data and a graphical, probabilistic modeling tool
2003	First Five Year Review	Golder/Monsanto	Review of monitoring data and groundwater model predictions to evaluate progress of selected remedial remedy, per the Record of Decision
2007	Groundwater Investigation - South of Plant	Golder/Monsanto	Installed 4 new groundwater monitoring wells (TW-59 through TW-62)
2008	Second Five Year Review	Golder/Monsanto	Review of monitoring data and groundwater model predictions to evaluate progress of selected remedial remedy, per the Record of Decision
2011	Groundwater Investigation - South and West of Plant	Golder/Monsanto	Installed 8 new groundwater monitoring wells (TW-63 through TW-70)
2012	UBZ-2 Source Area Investigations	Golder/Monsanto	Evaluation of hydrogeology and source areas in UBZ-2
2013	Third Five Year Review	EPA/Monsanto	Review progress of selected remedial remedy, per the Record of Decision
2013-2014	UBZ-2 Source Area Investigations	Golder/Monsanto	Installed 9 new groundwater monitoring wells (TW-71 through TW-79)
Ongoing	Annual groundwater sampling	Golder/Monsanto	Monsanto samples between 70 and 90 monitoring wells, offsite wells, springs, and surface water sites annually

Table 4: Sample Collection Summary June 2014

Location	Sample ID	Formation Monitored	Sample Date	Sample Time	Method	Purge Water Disposal Method	Filter/Unfilter	Filter Size (μm)	Notes
Surface Water/Non-Contact Cooling Water									
Little Spring Creek Pond Down	14102	NA	June 12, 2014	1:45 PM	Grab	NA	U/F	0.45	
Little Spring Creek Pond Up	14103	NA	June 12, 2014	2:15 PM	Grab	NA	U/F	0.45	
Non-Contact Cooling Water 1	14107	NA	June 13, 2014	12:00 PM	Grab	NA	U/F	0.45	
Non-Contact Cooling Water 2	14108	NA	June 13, 2014	12:15 PM	Grab	NA	U/F	0.45	
Non-Contact Cooling Water 3	14109	NA	June 13, 2014	12:30 PM	Grab	NA	U/F	0.45	
Non-Contact Cooling Water Pond Inlet	14105	NA	June 13, 2014	10:00 AM	Grab	NA	U/F	0.45	
PR-1 Power Return Canal	14113	NA	June 13, 2014	2:15 PM	Grab	NA	U/F	0.45	
SC-01 Soda Up	14106	NA	June 13, 2014	10:30 AM	Grab	NA	U/F	0.45	
SC-02 Soda Weir	14110	NA	June 13, 2014	12:45 PM	Grab	NA	U/F	0.45	
SC-03 Soda Mid	14112	NA	June 13, 2014	1:45 PM	Grab	NA	U/F	0.45	
SC-04 Soda Down	14116	NA	June 13, 2014	4:00 PM	Grab	NA	U/F	0.45	
SC-04 Soda Down	14117	NA	June 13, 2014	4:00 PM	Grab	NA	U/F	0.45	Split
SC-05 Soda Below Weir	14111	NA	June 13, 2014	12:50 PM	Grab	NA	U/F	0.45	
SC-06 Soda at Property Line	14115	NA	June 13, 2014	3:30 PM	Grab	NA	U/F	0.45	
SC-07 Soda Upstream Power Return	14114	NA	June 13, 2014	3:00 PM	Grab	NA	U/F	0.45	
SC-08 Soda at Octagon Park	14121	NA	June 14, 2014	10:00 AM	Grab	NA	U/F	0.45	
SC-08 Soda at Octagon Park	14122	NA	June 14, 2014	10:30 AM	Grab	NA	U/F	0.45	Duplicate
SC-09 Soda above Diversion	14123	NA	June 14, 2014	11:00 AM	Grab	NA	U/F	0.45	
SC-10 Soda at RR Bridge	14120	NA	June 14, 2014	9:30 AM	Grab	NA	U/F	0.45	
SC-11 Soda at Highway 30	14119	NA	June 14, 2014	8:30 AM	Grab	NA	U/F	0.45	
Groundwater - Springs									
Big Spring	14078	UBZ	June 10, 2014	11:00 AM	Grab	NA	U/F	0.45	
Calf Spring	NS	UBZ-1 ?5?							Spring was dry
City Park	14124	UBZ-1 ?5?	June 14, 2014	11:30 AM	Grab	NA	U/F	0.45	
Homestead Spring	14118	UBZ	June 13, 2014	4:30 PM	Grab	NA	U/F	0.45	
Marsh Spring	14101	UBZ-1 ?5?	June 12, 2014	1:15 PM	Grab	NA	U/F	0.45	
MC-1 Mormon Creek	14097	UBZ-1 ?5?	June 12, 2014	10:30 AM	Grab	NA	U/F	0.45	
Mormon A Spring	14093	UBZ-1 ?5?	June 12, 2014	8:40 AM	Grab	NA	U/F	0.45	
Mormon A Spring	14094	UBZ-1 ?5?	June 12, 2014	8:40 AM	Grab	NA	U/F	0.45	Split
Mormon B Spring	14095	UBZ-1 ?5?	June 12, 2014	9:20 AM	Grab	NA	U/F	0.45	
Mormon C Spring	14096	UBZ-1 ?5?	June 12, 2014	9:40 AM	Grab	NA	U/F	0.45	
SW Spring at Government Dam Road	14099	UBZ-1 ?5?	June 12, 2014	12:30 PM	Grab	NA	U/F	0.45	
SW Spring at Government Dam Road	14100	UBZ-1 ?5?	June 12, 2014	1:00 PM	Grab	NA	U/F	0.45	Duplicate
SW Spring above the Confluence with Soda Creek	14098	UBZ-1 ?5?	June 12, 2014	11:00 AM	Grab	NA	U/F	0.45	
Groundwater - Wells									
Harris	14033	UBZ-2 g4	June 5, 2014	12:20 PM	Non-Dedicated Pump	GROUND	U		
Independent Drilling	14125	UBZ	June 14, 2014	12:00 PM	Dedicated Pump	GROUND	U		
Lewis	14104	UBZ-2 g3 and g4?	June 12, 2014	3:00 PM	Dedicated Pump	GROUND	U		
PW-01	14091	UBZ-2 g3 and g4?	June 11, 2014	4:00 PM	Operating Well	GROUND	U		
PW-02	14090	UBZ-2 g3 and g4?	June 11, 2014	3:20 PM	Operating Well	GROUND	U		
PW-03	14089	UBZ-2 g3 and g4?	June 11, 2014	3:00 PM	Operating Well	GROUND	U		
PW-04	14036	UBZ-2 g3 and g4?	June 5, 2014	4:30 PM	Operating Well	GROUND	U		
SO2 Landfill North	14055	UBZ-4 g3	June 8, 2014	9:25 AM	Dedicated Pump	GROUND	U		
SO2 Landfill South	14056	UBZ-4 g3	June 8, 2014	10:00 AM	Dedicated Pump	GROUND	U		
TW-07	14030	UBZ-1 g3	June 4, 2014	6:00 PM	Non-Dedicated Pump	GROUND	U		

Table 4: Sample Collection Summary June 2014

Location	Sample ID	Formation Monitored	Sample Date	Sample Time	Method	Purge Water Disposal Method	Filter/Unfilter	Filter Size (μm)	Notes
TW-08	14034	UBZ-1 g3	June 5, 2014	2:15 PM	Non-Dedicated Pump	TANK	U		
TW-09	NS	LBZ-1							
TW-10	14024	UBZ-1 g5	June 3, 2014	5:20 PM	Dedicated Pump	TANK	U		
TW-11	14038	LBZ-3 g2	June 6, 2014	9:30 AM	Dedicated Pump	TANK	U		
TW-11	14039	LBZ-3 g2	June 6, 2014	10:00 AM	Dedicated Pump	TANK	U		Duplicate
TW-12	14040	UBZ-3 g3	June 6, 2014	10:15 AM	Dedicated Pump	TANK	U		
TW-12	14041	UBZ-3 g3	June 6, 2014	10:15 AM	Dedicated Pump	TANK	U		Split
TW-13	NS	UBZ-3 g3							
TW-14	NS	SDZ							
TW-15	14058	UBZ-4 flow V?	June 8, 2014	10:50 AM	Dedicated Pump	GROUND	U		
TW-16	14043	UBZ-4 g3	June 6, 2014	11:25 AM	Dedicated Pump	TANK	U		
TW-17	14042	UBZ-4 g3	June 6, 2014	11:00 AM	Dedicated Pump	TANK	U		
TW-18	14044	LBZ-4	June 6, 2014	2:00 PM	Dedicated Pump	GROUND	U		
TW-18	14311	LBZ-4	September 30, 2014	4:00 PM	Dedicated Pump	GROUND	U		Resample
TW-19	NS	UBZ-3 flow V							
TW-20	14019	UBZ-2 g4	June 3, 2014	1:15 PM	Dedicated Pump	TANK	U		
TW-21	NS	LBZ-2 g2							
TW-22	14028	UBZ-2 g4?	June 4, 2014	3:00 PM	Dedicated Pump	TANK	U		
TW-23	NS	LBZ-2 g2							
TW-24	14029	UBZ-2 g4	June 4, 2014	3:15 PM	Non-Dedicated Pump	GROUND	U		
TW-26	14035	UBZ-4 g2	June 5, 2014	4:05 PM	Dedicated Pump	TANK	U		
TW-28	NS	UBZ-4 g3							
TW-29	14047	UBZ-4 g3	June 6, 2014	5:30 PM	Dedicated Pump	GROUND	U		
TW-30	14053	UBZ-4 g3	June 7, 2014	4:15 PM	Dedicated Pump	TANK	U		
TW-31	NS	UBZ-4 g5							
TW-32	NS	LBZ-4 g2							
TW-33	14059	UBZ-4 g4	June 8, 2014	12:00 PM	Dedicated Pump	TANK	U		
TW-33	14060	UBZ-4 g4	June 8, 2014	12:15 PM	Dedicated Pump	TANK	U		Duplicate
TW-33	14061	UBZ-4 g4	June 8, 2014	12:00 PM	Dedicated Pump	TANK	U		Split
TW-34	14020	UBZ-2 g3	June 3, 2014	3:25 PM	Dedicated Pump	GROUND	U		
TW-35	14022	UBZ-2 g3	June 3, 2014	4:30 PM	Dedicated Pump	GROUND	U		
TW-35	14023	UBZ-2 g3	June 3, 2014	4:40 PM	Dedicated Pump	GROUND	U		Duplicate
TW-37	14045	UBZ-2 g4	June 6, 2014	2:45 PM	Dedicated Pump	TANK	U		
TW-38	14025	UBZ-3 g3	June 4, 2014	10:00 AM	Non-Dedicated Pump	TANK	U		
TW-38	14026	UBZ-3 g3	June 4, 2014	10:15 AM	Non-Dedicated Pump	TANK	U		Duplicate
TW-39	14021	UBZ-2 g4	June 3, 2014	4:05 PM	Dedicated Pump	TANK	U		
TW-40	14049	UBZ-4 g3	June 7, 2014	9:15 AM	Hand Bailed	TANK	F	0.45	
TW-41	14054	UBZ-4 g3	June 7, 2014	4:45 PM	Dedicated Pump	TANK	U		
TW-42	NS	UBZ-4 g3							
TW-43	14050	UBZ-4 g3	June 7, 2014	10:30 AM	Hand Bailed	TANK	F	0.45	
TW-44	14051	LBZ-4	June 7, 2014	12:45 PM	Dedicated Pump	TANK	F	0.45	
TW-45	14046	LBZ-2 g2	June 6, 2014	4:00 PM	Dedicated Pump	TANK	U		

Table 4: Sample Collection Summary June 2014

Location	Sample ID	Formation Monitored	Sample Date	Sample Time	Method	Purge Water Disposal Method	Filter/Unfilter	Filter Size (μm)	Notes
TW-48	14057	UBZ-4 g3	June 8, 2014	10:30 AM	Dedicated Pump	GROUND	U		
TW-49	14048	UBZ-4 g3	June 6, 2014	6:00 PM	Dedicated Pump	GROUND	U		
TW-50	14052	UBZ-4 g3	June 7, 2014	3:30 PM	Dedicated Pump	TANK	F	0.45	
TW-53	14071	UBZ-1 g5	June 8, 2014	5:00 PM	Dedicated Pump	TANK	U		
TW-54	14069	UBZ-2 g4	June 8, 2014	4:05 PM	Dedicated Pump	TANK	U		
TW-54	14070	UBZ-2 g4	June 8, 2014	4:05 PM	Dedicated Pump	TANK	U		Split
TW-55	14067	UBZ-2 g3	June 8, 2014	3:20 PM	Dedicated Pump	TANK	U		
TW-55	14068	UBZ-2 g3	June 8, 2014	3:20 PM	Dedicated Pump	TANK	U		Split
TW-56	14072	UBZ-3 g3	June 9, 2014	9:30 AM	Dedicated Pump	TANK	U		
TW-57	14074	UBZ-2 g5?	June 10, 2014	9:15 AM	Dedicated Pump	GROUND	U		
TW-58	14027	UBZ-2 g4	June 4, 2014	12:00 PM	Non-Dedicated Pump	TANK	U		
TW-59	14062	UBZ-2 g4	June 8, 2014	1:15 PM	Dedicated Pump	TANK	U		
TW-60	14032	UBZ-1 g4	June 5, 2014	10:10 AM	Dedicated Pump	GROUND	U		
TW-61	14031	UBZ-1 g4	June 5, 2014	9:00 AM	Dedicated Pump	GROUND	U		
TW-62	14063	UBZ-2 g4	June 8, 2014	1:45 PM	Dedicated Pump	TANK	U		
TW-62	14064	UBZ-2 g4	June 8, 2014	2:00 PM	Dedicated Pump	TANK	U		Duplicate
TW-63	NS	UBZ-2 g5							Water level below pump
TW-64	NS	UBZ-2 g5							Water level below pump
TW-65	14080	UBZ-2 g4	June 10, 2014	1:10 PM	Dedicated Pump	GROUND	U		
TW-66	14079	UBZ-2 g3	June 10, 2014	12:30 PM	Dedicated Pump	GROUND	U		
TW-67	14076	UBZ-2 g4/g3	June 10, 2014	10:30 AM	Dedicated Pump	GROUND	U		
TW-67	14077	UBZ-2 g4/g3	June 10, 2014	10:30 AM	Dedicated Pump	GROUND	U		Split
TW-68	14075	UBZ-1 g5	June 10, 2014	9:50 AM	Dedicated Pump	GROUND	U		
TW-69	14073	UBZ-1 g5	June 9, 2014	10:40 AM	Dedicated Pump	GROUND	U		
TW-70	14065	UBZ-2 g3	June 8, 2014	2:15 PM	Dedicated Pump	GROUND	U		
TW-70	14066	UBZ-2 g3	June 8, 2014	2:30 PM	Dedicated Pump	GROUND	U		Duplicate
TW-71	14081	UBZ-2 g4	June 10, 2014	4:00 PM	Dedicated Pump	TANK	U		
TW-72	14085	UBZ-2 g4	June 11, 2014	11:50 AM	Dedicated Pump	TANK	U		
TW-73	14086	UBZ-2 g4	June 11, 2014	12:10 PM	Dedicated Pump	TANK	U		
TW-74	14092	UBZ-4 g3	June 11, 2014	5:00 PM	Dedicated Pump	TANK	U		
TW-75	14088	UBZ-2 g4	June 11, 2014	2:30 PM	Dedicated Pump	TANK	U		
TW-76	14087	UBZ-2 g4	June 11, 2014	1:30 PM	Dedicated Pump	TANK	U		
TW-77	14082	UBZ-4 g2	June 10, 2014	5:40 PM	Dedicated Pump	TANK	U		
TW-78	14084	UBZ-4 g3	June 11, 2014	10:55 AM	Dedicated Pump	TANK	U		
TW-79	14083	UBZ-4 g3	June 11, 2014	8:30 AM	Dedicated Pump	TANK	U		
QA/QC									
Blank Distilled Water	14126	NA	June 14, 2014	1:00 PM	Grab	NA	U		Field Blank
Grundfos	14037	NA	June 6, 2014	8:00 AM	Grab	NA	U		Equipment Blank

Notes:

UBZ

Upper Basalt Zone

LBZ

Lower Basalt Zone

SDZ

Surficial Deposit Zone

U

Unfiltered

F

Filtered

NA

Not applicable

NS

No Sample - groundwater level only

Table 5: Analytical Methods for Monsanto Groundwater Sampling

Parameters	Analyzed in 2014	Analytical Method	Reporting Limit (mg/L)
Total Metals (surface water and groundwater) and Dissolved Metals (surface water only)			
Cadmium	Y	6010B	0.002
Calcium	Y	6010B	0.04
Magnesium	Y	6010B	0.06
Manganese	Y	6010B	0.004
Molybdenum	Y	6010B	0.01
Potassium	Y	6010B	0.50
Selenium	Y	6020	0.04 / 0.003
Sodium	Y	6010B	0.50
Vanadium	Y	6010B	0.01
Zinc	Y	6010B	0.01
Other Ions			
Alkalinity (CaCO ₃)	Y	2320B	1.00
CO ₃ /CaCO ₃	Y	2320B	1.00
HCO ₃ /CaCO ₃	Y	2320B	1.00
Ammonia as N	Y	350.1	0.03
Chloride	Y	300.0	1.00
Fluoride	Y	300.0	0.10
Hardness as CaCO ₃	Y	2340B	0.35
Nitrate and Nitrite As N	Y	353.2	0.02
Total Phosphorus	Y	4500-P-E	0.01
Sulfate	Y	300.0	0.30
TDS	Y	2540C	10.0
Field Parameters			
Specific Conductance	Y	NA	NA
Dissolved Oxygen	Y	NA	NA
Eh	Y	NA	NA
pH	Y	NA	NA
Turbidity	Y	NA	NA
Temperature	Y	NA	NA

Notes:

Y = Yes

N = No

NA = Not applicable

Table 6: Groundwater Elevations June 2014

Location	Date	Depth to Water (ft)	Formation Monitored	Approx. Well Volume (gal)	Approx. Purge Volume (gal)	Measurement Point (MP)	MP Elevation (ft)	Groundwater Elevation (ft)	Comments
Calf Spring	Not sampled	NA	UBZ-1 g5?	NA	NA	Water Surface	5,858.47	5,858.47	Dry in June 2013
Doc Spring	Not sampled	NA	LBZ-1	NA	NA	Water Surface	5,847.58	5,847.58	Not measured
Harris	June 5, 2014	17.4	UBZ-2 g4	73	219	Top of steel 1" pipe	5,877.56	5,860.16	
Homestead Spring	June 13, 2014	NA	UBZ-1 g5?	NA	NA	Water Surface	5,815.86	5,815.86	Less than 1 gpm
Hooper Spring	Not sampled	NA	LBZ-1	NA	NA	Water Surface	5,853.78	5,853.78	Not measured
Independent Drilling	June 14, 2014	NM	UBZ	88	265	Ground Elevation	5,828.00	NM	Access port blocked
Lewis	June 12, 2014	NM	UBZ-2 g3 and g4?			Top of well cap	5,864.35	NM	Not measured
Mormon A Spring	June 12, 2014	NA	UBZ-1 g5?	NA	NA	Water Surface	5,850.60	5,850.60	Flow 60-70 gpm
Mormon B Spring	June 12, 2014	NA	UBZ-1 g5?	NA	NA	Water Surface	5,843.55	5,843.55	Flow 6 gpm
Mormon C Spring	June 12, 2014	NA	UBZ-1 g5?	NA	NA	Water Surface	5,834.01	5,834.01	Flow 6 gpm
SO2 Landfill North	June 8, 2014	65.17	UBZ-4 g3	25	76	Top of coupling	5,994	5,928.83	Not surveyed-estimated
SO2 Landfill South	June 8, 2014	54.3	UBZ-4 g3	25	76	Top of coupling	5,988	5,933.70	Not surveyed-estimated
SW Spring at Government Dam Road	June 12, 2014	NA	UBZ-1 g5?	NA	NA	Water Surface	5,859.25	5,859.25	Flow 550 gpm
SW Spring above the confluence with Soda Creek	June 12, 2014	NA	UBZ-1 g5?	NA	NA		NM	NM	Flow 200 gpm
TW-07	June 4, 2014	15.69	UBZ-1 g4	33	129	Top of PVC well cap	5,885.11	5,869.42	
TW-08	June 5, 2014	15.27	UBZ-1 g3	63	189	Top of PVC well cap	5,884.88	5,869.61	
TW-09	June 3, 2014	7.85	LBZ-1	No sample		Top of coupling	5,884.91	5,877.06	
TW-10	June 3, 2014	16.33	UBZ-1 g5	11	33	Top of seal	5,885.53	5,869.20	
TW-11	June 6, 2014	71.7	LBZ-3 g2	56	168	Top of coupling	5,938.03	5,866.33	
TW-12	June 6, 2014	73.53	UBZ-3 g3	28	85	Top of seal	5,939.23	5,865.70	
TW-13	June 8, 2014	16.83	UBZ-3 g3	No sample		Top of seal	5,988.35	5,971.52	
TW-14	June 8, 2014	15.00	SDZ	No sample		Top of PVC casing	5,988.59	5,973.59	
TW-15	June 8, 2014	17.92	UBZ-4 flow V?	35	105	Top of seal	5,988.27	5,970.35	
TW-16	June 6, 2014	63.86	UBZ-4 g3	15	44	Top of seal	5,998.39	5,934.53	
TW-17	June 6, 2014	63.87	UBZ-4 g3	46	137	Top of seal	5,998.33	5,934.46	
TW-18	June 6, 2014	60.71	LBZ-4	128	384	Top of seal	5,996.89	5,936.18	
TW-19	June 3, 2014	31.22	UBZ basalt flow V	No sample		Top of PVC casing	5,893.07	5,861.85	
TW-20	June 3, 2014	31.67	UBZ-2 g4	15	44	Top of seal	5,893.37	5,861.70	
TW-21	June 3, 2014	26.67	LBZ-2 g2	No sample		Top of coupling	5,893.68	5,867.01	
TW-22	June 4, 2014	72.32	UBZ-2 g4?	36	109	Top of seal	5,954.70	5,882.38	
TW-23	June 4, 2014	71.38	LBZ-2 g2	No sample		Top of seal	5,954.70	5,883.32	
TW-24	June 4, 2014	72.03	UBZ-2 g4	26	78	Top of PVC casing	5,954.43	5,882.40	
TW-26	June 5, 2014	86.73	UBZ-4 g2	44	133	Top of seal	5,991.42	5,904.69	

Table 6: Groundwater Elevations June 2014

Location	Date	Depth to Water (ft)	Formation Monitored	Approx. Well Volume (gal)	Approx. Purge Volume (gal)	Measurement Point (MP)	MP Elevation (ft)	Groundwater Elevation (ft)	Comments
TW-28	June 6, 2014	41.65	UBZ-4 g3	No sample		Top of coupling	5,989.40	5,947.75	
TW-29	June 6, 2014	41.69	UBZ-4 g3	13	38	Top of coupling	5,989.59	5,947.90	
TW-30	June 7, 2014	62.61	UBZ-4 g3	10	30	Top of coupling	5,992.73	5,930.12	
TW-31	June 8, 2014	25.74	UBZ-4 g5	No sample		Top of PVC casing	5,975.29	5,949.55	
TW-32	June 8, 2014	28.2	LBZ-4 g2	No sample		Top of coupling	5,975.91	5,947.71	
TW-33	June 8, 2014	27.32	UBZ-4 g4	37	110	Top of seal	5,975.86	5,948.54	
TW-34	June 3, 2014	31.59	UBZ-2 g3	33	99	Top of coupling	5,893.43	5,861.84	
TW-35	June 3, 2014	34.25	UBZ-2 g3	41	124	Top of seal	5,897.16	5,862.91	
TW-37	June 6, 2014	67.33	UBZ-2 g4	26	79	Top of seal	5,959.17	5,891.84	
TW-38	June 4, 2014	94.97	UBZ-3 g3	11	34	Top of PVC casing	5,972.91	5,877.94	
TW-39	June 3, 2014	35.43	UBZ-2 g4	19	58	Top of seal	5,897.07	5,861.64	
TW-40	June 7, 2014	86.07	UBZ-4 g3	5	14	Top of seal	5,989.94	5,903.87	
TW-41	June 7, 2014	60.56	UBZ-4 g3	12	35	Top of coupling	5,994.31	5,933.75	
TW-42		NM	UBZ-4 g3	No sample		Top of seal	5,990.07	NM	No access port
TW-43	June 7, 2014	84.97	UBZ-4 g3	6	18	Top of PVC	5,989.08	5,904.11	
TW-44	June 7, 2014	97	LBZ-4	45	136	Top of seal = 0.04' above TOC	5,989.41	5,892.41	
TW-45	June 6, 2014	70.76	LBZ-2 g2	112	337	Top of coupling = 0.26' above TOC	5,959.17	5,888.41	
TW-48	June 8, 2014	59.85	UBZ-4 g3	11	33	Top of coupling	5,989.40	5,929.55	
TW-49	June 6, 2014	70.66	UBZ-4 g3	12	37	Top of seal	5,996.94	5,926.28	
TW-50	June 7, 2014	58.74	UBZ-4 g3	30	91	Top of seal	5,992.94	5,934.20	
TW-53	June 8, 2014	21.92	UBZ-1 g5	16	47	Top of coupling	5,880.65	5,858.73	
TW-54	June 8, 2014	31.23	UBZ-2 g4	24	72	Top of coupling	5,888.96	5,857.73	
TW-55	June 8, 2014	31.24	UBZ-2 g3	34	102	Top of coupling	5,886.33	5,855.09	
TW-56	June 9, 2014	57.59	UBZ-3 g3	35	104	Top of coupling	5,910.20	5,852.61	
TW-57	June 10, 2014	10.28	UBZ-2 g5?	25	76	Top of coupling	5,952.74	5,942.46	
TW-58	June 4, 2014	31.13	UBZ-2 g4	79	237	Top of Steel Casing	5,892.74	5,861.61	
TW-59	June 8, 2014	20.00	UBZ-2 g4	25	75	Top of coupling	5,858.64	5,838.64	
TW-60	June 5, 2014	33.2	UBZ-1 g4	25	75	Top of coupling	5,869.42	5,836.22	
TW-61	June 5, 2014	32.76	UBZ-1 g4	35	105	Top of coupling	5,878.75	5,845.99	
TW-62	June 8, 2014	33.3	UBZ-2 g4	31	93	Top of coupling	5,881.31	5,848.01	
TW-63	June 5, 2014	32.98	UBZ-2 g5	5	15	Top of seal	5,878.91	5,845.93	
TW-64	June 5, 2014	>34.05	UBZ-2 g5	2	6	Top of seal	5,869.73	<5835.68	Water level below pump
TW-65	June 10, 2014	15.85	UBZ-2 g4	23	69	Top of seal	5,816.42	5,800.57	
TW-66	June 10, 2014	17.37	UBZ-2 g3	42	126	Top of seal	5,816.22	5,798.85	
TW-67	June 10, 2014	28.42	UBZ-2 g4/g3	49	147	Top of seal	5,817.75	5,789.33	

Table 6: Groundwater Elevations June 2014

Location	Date	Depth to Water (ft)	Formation Monitored	Approx. Well Volume (gal)	Approx. Purge Volume (gal)	Measurement Point (MP)	MP Elevation (ft)	Groundwater Elevation (ft)	Comments
TW-68	June 10, 2014	38.25	UBZ-1 g5	25	75	Top of seal	5,924.73	5,886.48	
TW-69	June 9, 2014	11.72	UBZ-1 g5	13	42	Top of seal	5,892.45	5,880.73	
TW-70	June 8, 2014	34.13	UBZ-2 g3	62	186	Top of seal	5,882.28	5,848.15	
TW-71	June 10, 2014	94.44	UBZ-2 g4	57	171	Top of seal	5,988.40	5,893.96	
TW-72	June 11, 2014	82.76	UBZ-2 g4	44	132	Top of seal	5,974.55	5,891.79	
TW-73	June 11, 2014	85.29	UBZ-2 g4	22	66	Top of seal	5,970.33	5,885.04	
TW-74	June 11, 2014	73.70	UBZ-4 g3	33	99	Top of seal	6,009.20	5,935.50	
TW-75	June 11, 2014	72.45	UBZ-2 g4	36	108	Top of seal	5,955.80	5,883.35	
TW-76	June 11, 2014	75.00	UBZ-2 g4	34	102	Top of seal	5,959.67	5,884.67	
TW-77	June 10, 2014	70.69	UBZ-4 g2	71	213	Top of seal	5,991.02	5,920.33	
TW-78	June 11, 2014	67.45	UBZ-4 g3	50	150	Top of seal	5,986.32	5,918.87	
TW-79	June 11, 2014	85.72	UBZ-4 g3	38	114	Top of seal	6,000.98	5,915.26	

Note:

TBD: To be determined

NM: Not measured

NA: Not applicable

Table 7: Field Water Quality June 2014

Location	Sample ID	Formation Monitored	Sample Date	Sample Time	Method	pH (s.u.)	Specific Conductance ($\mu\text{S}/\text{cm}$)	Turbidity (NTU)	Temperature ($^{\circ}\text{C}$)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)
Surface Water/Non-Contact Cooling Water											
Little Spring Creek Pond Up	14103	NA	June 12, 2014	2:15 PM	Grab	8.40	845	2.76	19.5	8.09	183
Little Spring Creek Pond Down	14102	NA	June 12, 2014	1:45 PM	Grab	8.43	825	7.54	17.4	13.29	204
Non-Contact Cooling Water 1	14107	NA	June 13, 2014	12:00 PM	Grab	8.25	2,717	1.15	20.8	7.05	215
Non-Contact Cooling Water Pond Inlet	14105	NA	June 13, 2014	10:00 AM	Grab	7.90	1,411	0.94	21.1	6.92	248
PR-1 Power Return Canal	14113	NA	June 13, 2014	2:15 PM	Grab	7.46	1,104	4.90	19.0	10.29	219
SC-01 Soda Up	14106	NA	June 13, 2014	10:30 AM	Grab	7.31	979	3.96	16.9	9.94	253
SC-02 Soda Weir	14110	NA	June 13, 2014	12:45 PM	Grab	7.36	994	4.44	17.8	9.85	244
SC-03 Soda Mid	14112	NA	June 13, 2014	1:45 PM	Grab	7.40	1,617	8.51	19.1	8.58	215
SC-04 Soda Down	14116	NA	June 13, 2014	4:00 PM	Grab	7.43	1,738	8.99	20.9	7.64	207
SC-05 Soda Below Weir	14111	NA	June 13, 2014	12:50 PM	Grab	6.79	1,069	3.97	18.1	6.9	232
SC-06 Soda at Property Line	14115	NA	June 13, 2014	3:30 PM	Grab	8.23	1,668	10.30	24.1	7.07	183
SC-07 Soda Upstream Power Return	14114	NA	June 13, 2014	3:00 PM	Grab	7.46	1,422	6.43	19.1	7.11	205
SC-08 Soda at Octagon Park	14121	NA	June 14, 2014	10:00 AM	Grab	7.41	951	6.57	14.7	8.25	228
SC-09 Soda above Diversion	14123	NA	June 14, 2014	11:00 AM	Grab	7.45	935	8.31	14.9	8.3	232
SC-10 Soda at RR Bridge	14120	NA	June 14, 2014	9:30 AM	Grab	7.21	1,319	3.69	124.0	7.6	238
SC-11 Soda at Highway 30	14119	NA	June 14, 2014	8:30 AM	Grab	7.38	1,344	2.87	11.1	6.9	238
Groundwater - Springs											
Big Spring	14078	UBZ	June 10, 2014	11:00 AM	Grab	7.45	844	1.71	9.5	7.99	244
Calf Spring	NS	UBZ-1 γ5?			Grab		NS - Spring dry				
City Park Spring	14124	UBZ	June 14, 2014	11:30 AM	Grab	6.63	1,001	173.00	12.9	5.05	217
Homestead Spring	14118	UBZ-1 γ5?	June 13, 2014	4:30 PM	Grab	7.13	1,434	1.34	9.1	7.52	222
Mormon A Spring	14093	UBZ-1 γ5?	June 12, 2014	8:40 AM	Grab	7.06	2,595	0.96	13.8	7.02	366
Mormon B Spring	14095	UBZ-1 γ5?	June 12, 2014	9:20 AM	Grab	6.98	2,517	0.90	10.2	6.26	300
Mormon C Spring	14096	UBZ-1 γ5?	June 12, 2014	9:40 AM	Grab	6.93	2,437	0.86	8.8	7.63	294
MC-1 Mormon Creek	14097	UBZ-1 γ5?	June 12, 2014	10:30 AM	Grab	7.91	2,716	4.18	13.8	8.24	246
SW Spring at Government Dam Road	14099	UBZ-1 γ5?	June 12, 2014	12:30 PM	Grab	6.77	2,050	1.66	12.4	9.53	256
SW Spring above the confluence with Soda Cr	14098	UBZ-1 γ5?	June 12, 2014	11:00 AM	Grab	7.55	206	7.2	13.2	8.72	242
Marsh Spring	14101	UBZ-1 γ5?	June 12, 2014	1:15 PM	Grab	6.11	1,964	4.7	11.9	0.6	184
Groundwater - Wells											
PW-01	14091	UBZ,LBZ-4	June 11, 2014	4:00 PM	Operating Well	6.90	1,446	1.02	9.7	6.6	224
PW-02	14090	UBZ,LBZ-4	June 11, 2014	3:20 PM	Operating Well	7.10	1,079	1.69	9.6	7.5	233
PW-03	14089	UBZ,LBZ-4	June 11, 2014	3:00 PM	Operating Well	7.43	979	0.77	9.5	8.6	229
PW-04	14036	UBZ,LBZ-4	June 5, 2014	4:30 PM	Operating Well	7.09	984	0.77	8.8	6.55	216

Table 7: Field Water Quality June 2014

Location	Sample ID	Formation Monitored	Sample Date	Sample Time	Method	pH (s.u.)	Specific Conductance ($\mu\text{S}/\text{cm}$)	Turbidity (NTU)	Temperature ($^{\circ}\text{C}$)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)
Harris	14033	UBZ-2 γ 4	June 5, 2014	12:20 PM	Non-Dedicated Pump	6.97	2,059	2.14	10.0	4.60	198
Independent Drilling	14125	UBZ	June 14, 2014	12:00 PM	Dedicated Pump	7.53	702	1.46	9.3	5.91	217
Lewis	14104	UBZ-2 γ 3 and γ 4?	June 12, 2014	3:00 PM	Dedicated Pump	7.03	1,578	1.20	11.5	3.24	206
SO2 Landfill North	14055	UBZ-4 γ 3	June 8, 2014	9:25 AM	Dedicated Pump	7.59	637	2.84	8.6	8.29	238
SO2 Landfill South	14056	UBZ-4 γ 3	June 8, 2014	10:00 AM	Dedicated Pump	6.88	942	1.28	8.5	5.46	243
TW-07	14030	UBZ-1 γ 4	June 4, 2014	6:00 PM	Non-Dedicated Pump	6.43	1,444	1.10	10.9	1.75	165
TW-08	14034	UBZ-1 γ 3	June 5, 2014	2:15 PM	Non-Dedicated Pump	6.27	2,208	1.33	11.0	0.58	158
TW-10	14024	UBZ-1 γ 5	June 3, 2014	5:20 PM	Dedicated Pump	6.78	1,718	2.09	10.5	5.87	200
TW-11	14038	LBZ-3 γ 2	June 6, 2014	9:30 AM	Dedicated Pump	7.21	981	1.37	10.7	0.98	171
TW-12	14040	UBZ-3 γ 3	June 6, 2014	10:15 AM	Dedicated Pump	7.13	964	1.34	11.1	1.46	183
TW-15	14058	UBZ-4 flow V?	June 8, 2014	10:50 AM	Dedicated Pump	7.38	704	1.85	8.9	8.55	238
TW-16	14043	UBZ-4 γ 3	June 6, 2014	11:25 AM	Dedicated Pump	6.61	1,666	1.36	9.6	5.86	236
TW-17	14042	UBZ-4 γ 3	June 6, 2014	11:00 AM	Dedicated Pump	6.91	2,437	2.57	10.4	2.94	185
TW-18	14044	LBZ-4	June 6, 2014	2:00 PM	Dedicated Pump	6.10	2,459	1.76	11.9	0.95	163
TW-20	14019	UBZ-2 γ 4	June 3, 2014	1:15 PM	Dedicated Pump	6.91	2,015	2.39	16.6	4.82	202
TW-22	14028	UBZ-2 γ 4?	June 4, 2014	3:00 PM	Dedicated Pump	6.57	1,209	1.01	11.6	3.19	158
TW-24	14029	UBZ-2 γ 4	June 4, 2014	3:15 PM	Non-Dedicated Pump	6.54	1,243	0.56	11.0	1.97	163
TW-26	14035	UBZ-4 γ 2	June 5, 2014	4:05 PM	Dedicated Pump	6.99	2,115	3.62	11.5	2.27	169
TW-29	14047	UBZ-4 γ 3	June 6, 2014	5:30 PM	Dedicated Pump	6.53	1,379	1.22	9.4	5.25	167
TW-30	14053	UBZ-4 γ 3	June 7, 2014	4:15 PM	Dedicated Pump	6.80	3,010	2.46	11.5	5.12	156
TW-33	14059	UBZ-4 γ 4	June 8, 2014	12:00 PM	Dedicated Pump	7.33	741	2.86	11.7	7.05	228
TW-34	14020	UBZ-2 γ 3	June 3, 2014	3:25 PM	Dedicated Pump	7.06	1,539	1.77	20.3	4.60	167
TW-35	14022	UBZ-2 γ 3	June 3, 2014	4:30 PM	Dedicated Pump	6.25	2,019	1.98	18.7	0.94	174
TW-37	14045	UBZ-2 γ 4	June 6, 2014	2:45 PM	Dedicated Pump	6.57	2,632	2.01	12.5	3.45	184
TW-38	14025	UBZ-3 γ 3	June 4, 2014	10:00 AM	Non-Dedicated Pump	7.18	716	1.84	11.0	3.12	203
TW-39	14021	UBZ-2 γ 4	June 3, 2014	4:05 PM	Dedicated Pump	6.58	2,122	2.20	20.4	1.18	166
TW-40	14049	UBZ-4 γ 3	June 7, 2014	9:15 AM	Hand Bailed	6.77	4,090	43.00	14.3	5.43	143
TW-41	14054	UBZ-4 γ 3	June 7, 2014	4:45 PM	Dedicated Pump	6.70	2,315	3.04	15.4	3.34	184
TW-43	14050	UBZ-4 γ 3	June 7, 2014	10:30 AM	Hand Bailed	6.77	3,840	102.00	14.0	5.41	150
TW-44	14051	LBZ-4	June 7, 2014	12:45 PM	Dedicated Pump	6.82	1,572	9.02	15.8	6.1	134.4
TW-45	14046	LBZ-2 γ 2	June 6, 2014	4:00 PM	Dedicated Pump	6.05	1,752	1.47	11.9	0.87	131
TW-48	14057	UBZ-4 γ 3	June 8, 2014	10:30 AM	Dedicated Pump	7.12	837	3.10	8.9	6.17	241
TW-49	14048	UBZ-4 γ 3	June 6, 2014	6:00 PM	Dedicated Pump	6.79	1,069	1.80	8.4	5.31	170

Table 7: Field Water Quality June 2014

Location	Sample ID	Formation Monitored	Sample Date	Sample Time	Method	pH (s.u.)	Specific Conductance ($\mu\text{S}/\text{cm}$)	Turbidity (NTU)	Temperature ($^{\circ}\text{C}$)	Dissolved Oxygen (mg/L)	Oxidation-Reduction Potential (mV)
TW-50	14052	UBZ-4 γ 3	June 7, 2014	3:30 PM	Dedicated Pump	6.97	2,871	8.56	14.7	1.11	111
TW-53	14071	UBZ-1 γ 5	June 8, 2014	5:00 PM	Dedicated Pump	6.83	1,819	1.71	10.3	5.99	217
TW-54	14069	UBZ-2 γ 4	June 8, 2014	4:05 PM	Dedicated Pump	6.86	2,046	1.76	11.7	3.30	199
TW-55	14067	UBZ-2 γ 3	June 8, 2014	3:20 PM	Dedicated Pump	6.50	1,410	1.65	10.9	3.74	209
TW-56	14072	UBZ-3 γ 3	June 9, 2014	9:30 AM	Dedicated Pump	7.48	1,013	1.73	11.4	5.45	240
TW-57	14074	UBZ-2 γ 5?	June 10, 2014	9:15 AM	Dedicated Pump	6.65	1,283	1.39	6.6	3.90	273
TW-58	14027	UBZ-2 γ 4	June 4, 2014	12:00 PM	Non-Dedicated Pump	6.81	1,705	4.01	16.2	3.64	218
TW-59	14062	UBZ-2 γ 4	June 8, 2014	1:15 PM	Dedicated Pump	6.82	1,531	2.78	9.4	6.61	235
TW-60	14032	UBZ-1 γ 4	June 5, 2014	10:10 AM	Dedicated Pump	6.32	1,964	3.39	10.0	1.87	204
TW-61	14031	UBZ-1 γ 4	June 5, 2014	9:00 AM	Dedicated Pump	6.16	1,933	1.38	9.5	0.77	191
TW-62	14063	UBZ-2 γ 4	June 8, 2014	1:45 PM	Dedicated Pump	6.53	1,688	1.79	9.5	4.29	231
TW-63	Not sampled - Dry	UBZ-2 γ 5			Dedicated Pump	NS - Water level below pump					
TW-64	Not sampled - Dry	UBZ-2 γ 5			Dedicated Pump	NS - Water level below pump					
TW-65	14080	UBZ-2 γ 4	June 10, 2014	1:10 PM	Dedicated Pump	6.84	1,568	1.79	10.2	6.31	254
TW-66	14079	UBZ-2 γ 3	June 10, 2014	12:30 PM	Dedicated Pump	7.21	1,653	1.58	11.8	3.21	219
TW-67	14076	UBZ-2 γ 4/ γ 3	June 10, 2014	10:30 AM	Dedicated Pump	7.06	907	1.65	10.9	1.38	203
TW-68	14075	UBZ-1 γ 5	June 10, 2014	9:50 AM	Dedicated Pump	6.40	1,381	1.49	9.2	5.04	276
TW-69	14073	UBZ-1 γ 5	June 9, 2014	10:40 AM	Dedicated Pump	6.60	1,552	2.05	10.6	4.37	266
TW-70	14065	UBZ-2 γ 3	June 8, 2014	2:15 PM	Dedicated Pump	6.47	1,765	1.52	9.6	2.75	173
TW-71	14081	UBZ-2 γ 4	June 10, 2014	4:00 PM	Dedicated Pump	6.56	3,010	3.28	18.7	6.12	206
TW-72	14085	UBZ-2 γ 4	June 11, 2014	11:50 AM	Dedicated Pump	6.73	3,290	1.10	14.9	5.02	193
TW-73	14086	UBZ-2 γ 4	June 11, 2014	12:10 PM	Dedicated Pump	6.67	1,832	1.42	11.0	4.28	211
TW-74	14092	UBZ-4 γ 3	June 11, 2014	5:00 PM	Dedicated Pump	6.87	1,346	1.31	11.2	4.06	204
TW-75	14088	UBZ-2 γ 4	June 11, 2014	2:30 PM	Dedicated Pump	6.74	1,751	1.40	9.2	5.17	207
TW-76	14087	UBZ-2 γ 4	June 11, 2014	1:30 PM	Dedicated Pump	6.72	1,654	1.89	10.2	4.87	219
TW-77	14082	UBZ-4 γ 2	June 10, 2014	5:40 PM	Dedicated Pump	6.67	2,483	2.03	16.6	3.22	156
TW-78	14084	UBZ-4 γ 3	June 11, 2014	10:55 AM	Dedicated Pump	6.87	2,108	1.54	14.1	4.53	183
TW-79	14083	UBZ-4 γ 3	June 11, 2014	8:30 AM	Dedicated Pump	6.84	2,107	2.55	11.5	4.24	173

Notes:

UBZ: Upper Basalt Zone

LBZ: Lower Basalt Zone

U: Unfiltered

F: Filtered

NA: Not applicable

NS: Not sampled

Table 8a: Analytical Results for Wells June 2014 Sample Round

Location	Formation and Zone	Sample Number	Filtered	Sample Type	Alkalinity (Total) (mg/L as CaCO ₃)	Q	Alkalinity (Carbonate) (mg/L as CaCO ₃)	Q	Alkalinity (Bicarbonate) (mg/L as CaCO ₃)	Q	Ammonia as N (mg/L)	Q	Total Recoverable Cadmium mg/L	Total Recoverable Calcium mg/L	Q	Chloride mg/L	Q	Fluoride (mg/L)	Q	Hardness (mg/L as CaCO ₃)	Q	Total Recoverable Magnesium (mg/L)	Q	Total Recoverable Manganese (mg/L)	Q	Nitrate and Nitrite as N (mg/L)	Q	
REMEDIATION GOAL																												
Harris Well	UBZ-2 γ4	14033	N		504	1	U	504		0.031		0.00068	188		115	D	2.68	D	1,020		133		0.0013	U	0.0534		7.13	D
Independent Well	UBZ	14125	N		383	1	U	383		0.030	U	0.00068	102		13.7	D	0.34		435		44		0.0013	U	0.0027		2.01	
Lewis	UBZ-2 γ3 and γ4?	14104	N		463	1	U	463		0.030	U	0.00068	134		47.8	D	0.51		648		76		0.0013	U	0.0711		6.73	D
PW-01	UBZ,LBZ-4	14091	N		477	1	U	477		0.030	U	0.04100	152		81.0	D	1.02		718		82		0.0013	U	0.0373		4.38	D
PW-02	UBZ,LBZ-4	14090	N		455	1	U	455		0.030	U	0.01080	137		47.2	D	0.45		610		65		0.0013	U	0.0391		4.19	
PW-03	UBZ,LBZ-4	14089	N		438	1	U	438		0.030	U	0.00250	126		38.8	D	0.42		550		57		0.0013	U	0.0353		3.43	
PW-04	UBZ,LBZ-4	14036	N		451	1	U	451		0.030	U	0.00068	115		15.4	D	0.29		525		58		0.0013	U	0.0028	J	4.28	
SO2 Landfill North	UBZ-4 γ3	14055	N		223	1	U	223		0.030	U	0.00068	89.7		21.1	D	0.38		293		17		0.0013	U	0.0027		17.70	D
SO2 Landfill South	UBZ-4 γ3	14056	N		489	1	U	489		0.030	U	0.00068	121		14.6	D	0.27		559		63		0.0013	U	0.0031	J	4.06	
TW-07	UBZ-1 γ3	14030	N		953	1	U	953		0.092		0.00068	104		37.5	D	1.14		1,060		195		0.481		0.0058	J	0.10	
TW-08	UBZ-1 γ3	14034	N		1,360	1	U	1,360		0.730		0.00068	53.7		18.9	D	0.10	U	1,400		308		0.0987		0.0027	U	0.05	U
TW-10	UBZ-1 γ5	14024	N		772	1	U	772		0.030	U	0.00068	137		54.6	D	2.47		946		147		0.0013	U	0.0379		6.02	D
TW-11	LBZ-3 γ2	14038	N		412	1	U	412		6.19	D	0.00068	98.5		25.0	D	0.26		399		37		0.0013	U	0.0027	U	4.31	
TW-11	LBZ-3 γ2	14039	N	Duplicate	416	1	U	416		6.39	D	0.00068	98.8		25.0	D	0.27		401		37		0.0013	U	0.0027	U	4.14	
TW-12	UBZ-3 γ3	14040	N		397	1	U	397		6.92	D	0.00068	102		22.5	D	0.31		410		38		0.0174		0.382		6.32	D
TW-12	UBZ-3 γ3	14041	N	Split	370	1	U	397		2.81		0.00100	106		25.0		0.20		425		39		0.018		0.370		5.93	
TW-15	UBZ-4 flow V?	14058	N		386	10.3	0	375		0.044		0.00074	103		10.6		0.25		424		40		0.0013	U	0.0027	U	1.35	
TW-16	UBZ-4 γ3	14043	N		577	1	U	577		0.038		0.45000	158		111	D	2.05		816		102		0.0013	U	0.0082		4.96	
TW-17	UBZ-4 γ3	14042	N		1,080	1	U	1,080		0.228		0.0066	72.3		166	D	2.52	D	1,350		284		3.00		0.0287		0.40	
TW-18	LBZ-4	14044	N		1,010	1	U	1,010		0.465		0.00068	150		73.5	D	0.80	D	1,460		265		0.700		0.0069	J	0.05	U
TW-18	LBZ-4	14331	N	Resample	1,040	1	U	1,040		0.455		0.002	144		72.9	D	0.5	U	1,410		255		0.683		0.008	U	0.05	U
TW-20	UBZ-2 γ4	14019	N		362	1	U	362		0.030	U	0.0091	200		134	D	2.91		1,000		122		0.0013	U	0.0572		14.30	D
TW-22	UBZ-2 γ4?	14028	N		745	1	U	745		1.22		0.0236	140		26.7	D	3.06		801		109		0.6580		0.231		3.90	
TW-24	UBZ-2 γ4	14029	N		754	1	U	754		0.795		0.2550	149		30.2	D	4.39		820		109		0.2560		0.215		4.22	
TW-26	UBZ-4 γ2	14035	N		547	1	U	547		0.623		0.00068	138		201	D	1.44	D	848		122		0.5040		0.112		4.94	D
TW-29	UBZ-4 γ3	14047	N		620	1	U	620		0.030	U	0.00068	153		65	D	0.35		754		91		0.0013	U	0.0027	U	3.95	J
TW-30	UBZ-4 γ3	14053	N		408	1	U	408		0.030	U	0.00068	266		348	D	2.81	D	1,290		151		0.0130		0.0922		5.76	D
TW-33	UBZ-4 γ4	14059	N		422	1	U	422		0.030	U	0.00068	111		12.5	D	0.24		442		40		0.0028	J	0.0283		2.34	
TW-33	UBZ-4 γ4	14060	N	Duplicate	419	1	U	419		0.030	U	0.00068	111		13.1	D	0.30		437		39		0.0031	J	0.0294		2.30	
TW-33	UBZ-4 γ4	14061	N	Split	410	1	U	419	< 0.05		0.00100		114		12.0		0.20		447		40		0.0040		0.026		1.95	
TW-34	UBZ-2 γ3	14020	N		632	1	U	632		0.030	U	0.00068	154		44.3	D	0.63		867		117		0.162		0.0027	U		

Table 8a: Analytical Results for Wells June 2014 Sample Round

Location	Formation and Zone	Sample Number	Filtered	Sample Type	Alkalinity (Total) (mg/L as CaCO ₃)	Q	Alkalinity (Carbonate) (mg/L as CaCO ₃)	Q	Alkalinity (Bicarbonate) (mg/L as CaCO ₃)	Q	Ammonia as N (mg/L)	Q	Total Recoverable Cadmium mg/L	Q	Total Recoverable Calcium mg/L	Q	Chloride mg/L	Q	Fluoride (mg/L)	Q	Hardness (mg/L as CaCO ₃)	Q	Total Recoverable Magnesium (mg/L)	Q	Total Recoverable Manganese (mg/L)	Q	Total Recoverable Molybdenum (mg/L)	Q	Nitrate and Nitrite as N (mg/L)	Q
TW-60	UBZ-1 γ4	14032	N		1,140	1	U	1,140		0.488	J	0.00068	69.0		19.6	J	1.02	J+	1,170		242		5.21		0.0028	J	0.35			
TW-61	UBZ-1 γ4	14031	N		1,050	1	U	1,050		0.610		0.00068	94.1		24.4	D	1.04		1,090		209		0.495		0.0027	U	0.35			
TW-62	UBZ-2 γ4	14063	N		611	1	U	611		0.030	U	0.00068	193		78.8	D	0.73		984		122		0.0013	U	0.0064	J	6.98	D		
TW-62	UBZ-2 γ4	14064	N	Duplicate	611	1	U	611		0.033		0.00068	191		79.5	D	0.74		973		120		0.0013	U	0.0064	J	6.99	D		
TW-63	UBZ-1 γ5	NS																												
TW-64	UBZ-1 γ5	NS																												
TW-65	UBZ-2 γ4	14080	N		706	1	U	706		0.030	U	0.00078	191		51.4	D	0.10	U	922		108		0.0013	U	0.0027	U	7.19	D		
TW-66	UBZ-2 γ3	14079	N		922	1	U	922		0.043		0.00068	169		40.2	D	0.13		1,080		159		0.0235		0.0027	U	2.37			
TW-67	UBZ-2 γ4/γ3	14076	N		391	1	U	391		2.80	D	0.00068	110		26.8	D	0.43		458		44		0.0119		0.323		4.05			
TW-67	UBZ-2 γ4/γ3	14077	N	Split	400	1	U	391		2.47		0.00100	109		30.0		0.20		443		42		0.0120		0.298		7.66			
TW-68	UBZ-1 γ5	14075	N		826	1	U	826		0.030	U	0.00086	118		14.1	D	0.53		788		120		0.0013	U	0.0027	U	1.18			
TW-69	UBZ-1 γ5	14073	N		861	1	U	861		0.035		0.138	139		20.5	D	3.64		888		131		0.0013	U	0.0934		3.75			
TW-70	UBZ-2 γ3	14065	N		815	1	U	815		0.030	U	0.00068	211		59.7	D	0.11		1,090		137		0.0017	J	0.0038	J	4.73			
TW-70	UBZ-2 γ3	14066	N	Duplicate	805	1	U	805		0.035		0.00068	213		59.9	D	0.11		1,110		139		0.0024	J	0.0027	U	4.74			
TW-71	UBZ-2 γ4	14081	N		255	1	U	255		0.344		0.448	207		467	D	3.04	D	1,570		255		4.28		0.397		14.70	D		
TW-72	UBZ-2 γ4	14085	N		199	1	U	199		6.50	D	0.278	288		381	D	3.80	D	1,480		184		0.938		0.494		5.56	D		
TW-73	UBZ-2 γ4	14086	N		550	1	U	550		0.403		0.238	164		142	D	7.41	D	913		122		0.284		0.449		4.17			
TW-74	UBZ-4 γ3	14092	N		663	1	U	663		0.030		0.0009	127		21.3	D	0.64		755		106		0.121		0.011		6.46	D		
TW-75	UBZ-2 γ4	14088	N		589	1	U	589		0.819		0.140	176		96.7	D	4.77	D	933		120		0.752		0.354		3.42			
TW-76	UBZ-2 γ4	14087	N		689	1	U	689		0.345	D	0.0020	163		122	D	2.02		896		118		0.0733		0.291		5.14	D		
TW-77	UBZ-4 γ2	14082	N		440	1	U	440		3.16	D	0.00068	208		233	D	1.34	D	1,270		183		1.34		0.263		0.07			
TW-78	UBZ-4 γ3	14084	N		477	1	U	477		6.50	D	0.0499	154		257	D	9.93	D	973		143		2.57		0.216		1.55			
TW-79	UBZ-4 γ3	14083	N		80	1	U	80		0.503		0.00068	251		356	D	7.84	D	1,020		96		0.541		0.046		2.62			

Notes:

"- Not applicable

na: not analyzed

ns: no sample

J - The result is an estimated value.

J - The result is an estimated value with low bias.

J+ - The result is an estimated value with high bias.

UJ - The analyte was analyzed for but was not detected.

The reported quantitation limit is approximate and may be inaccurate or imprecise.

U - The analyte was not detected at the method detection limit.

D - A dilution was applied for the analysis

N - Unfiltered

Y - Filtered

Table 8a: Analytical Results for Wells June 2014 Sample Round

Location	Formation and Zone	Sample Number	Filtered	Sample Type	Phosphorus (Total) (mg/L)	Q	Total Recoverable Potassium (mg/L)	Q	Total Recoverable Selenium (mg/L)	Q	Total Recoverable Sodium (mg/L)	Q	Sulfate (mg/L)	Q	Total Dissolved Solids (mg/L)	Q	Total Recoverable Vanadium (mg/L)	Q	Total Recoverable Zinc (mg/L)	Q
REMEDIATION GOAL																				
Harris Well	UBZ-2 γ4	14033	N		0.19		21.5		0.316		89.7		505	D	1,430		0.0029	J	0.0095	J
Independent Well	UBZ	14125	N		0.01		3.1		0.0015	J	10.8		40		441		0.0025	J	0.0362	
Lewis	UBZ-2 γ3 and γ4?	14104	N		0.11		7.1		0.024		36.1		175	D	792		0.0055		0.0169	
PW-01	UBZ,LBZ-4	14091	N		1.04	D	12.8		0.0369		91.9		264	D	989		0.0087		0.062	
PW-02	UBZ,LBZ-4	14090	N		0.37		7.7		0.0120		52.0		155	D	742		0.0219		0.0285	
PW-03	UBZ,LBZ-4	14089	N		0.31		6.0		0.0097		43.0		111	D	676		0.0634		0.0127	
PW-04	UBZ,LBZ-4	14036	N		0.06		5.0		0.0016	J	21.5		87	D	624		0.0017	U	0.0032	U
SO2 Landfill North	UBZ-4 γ3	14055	N		0.05		2.3		0.0031		23.2		47		429		0.0056		0.0032	U
SO2 Landfill South	UBZ-4 γ3	14056	N		0.06		5.2		0.0015	J	23.3		89	D	619		0.0017	U	0.0032	U
TW-07	UBZ-1 γ3	14030	N		0.09		16.3		0.030		49.9		148	D	1,150		0.0017	U	0.0041	J
TW-08	UBZ-1 γ3	14034	N		0.95	D	21.9		0.00052	U	48.5		81	D	1,370		0.0017	U	0.0032	U
TW-10	UBZ-1 γ5	14024	N		0.31		12.9		0.267		58.8		166	D	1,100		0.0052		0.0106	
TW-11	LBZ-3 γ2	14038	N		0.06		8.9		0.0022		51.5		77	D	566		0.0017	U	0.0032	U
TW-11	LBZ-3 γ2	14039	N	Duplicate	0.06		9.1		0.0021		51.6		77	D	562		0.0017	U	0.0032	U
TW-12	UBZ-3 γ3	14040	N		0.55		6.3		0.0014	J	41.5		79	D	522		0.652		0.0032	U
TW-12	UBZ-3 γ3	14041	N	Split	0.53		5.9		0.0010		40.6		86		556		0.688		0.0010	
TW-15	UBZ-4 flow V?	14058	N		0.05		2.6		0.0034		8.4		46		432		0.0017	U	0.0126	
TW-16	UBZ-4 γ3	14043	N		1.63	D	9.7		0.177		55.3		179	D	1,060		0.0491		1.53	
TW-17	UBZ-4 γ3	14042	N		0.97		22.6		0.129		95.0		225	D	1,560		0.0017	U	0.0536	
TW-18	LBZ-4	14044	N		0.83		23.7		0.00052	U	102		527	D	1,780		0.0017	U	0.0134	
TW-18	LBZ-4	14331	N	Resample	0.839		23.5		0.005	U	106		504	D	1,800		0.005	U	0.01	U
TW-20	UBZ-2 γ4	14019	N		0.15		23.6		0.240		84.8		585	D	1,510		0.0017	U	0.101	
TW-22	UBZ-2 γ4?	14028	N		0.42		27.6		0.180		45.8		120	D	985		0.0032	J	0.123	
TW-24	UBZ-2 γ4	14029	N		0.40		26.9		0.238		50.3		125	D	996		0.0642		1.84	
TW-26	UBZ-4 γ2	14035	N		0.52		28.0		0.363		149		319	D	1,380		0.0027	J	0.0039	J
TW-29	UBZ-4 γ3	14047	N		0.10		6.8		0.0041		27.4		82	D	867		0.0020	U	0.0032	U
TW-30	UBZ-4 γ3	14053	N		3.97	D	40.2		0.168		243		929	D	2,380		0.0017	U	0.0104	
TW-33	UBZ-4 γ4	14059	N		0.14		2.4		0.0022		12.9		40		483		0.367		0.0079	J
TW-33	UBZ-4 γ4	14060	N	Duplicate	0.15		2.3		0.0022		13.0		40		483		0.369		0.0056	J
TW-33	UBZ-4 γ4	14061	N	Split	0.17		2.3		0.0020		13.1		36		484		0.391		0.0080	
TW-34	UBZ-2 γ3	14020	N		0.07		10.8		0.0190		26.3		251	D	1,040		0.0017	U	0.0043	J
TW-35	UBZ-2 γ3	14022	N		0.41		20.7		0.0005	U	46.4		140	D	1,290		0.0017	U	0.0032	U
TW-35	UBZ-2 γ3	14023	N	Duplicate	0.58		19.7		0.0005	U	46.0		138	D	1,250		0.0017	U	0.0032	U
TW-37	UBZ-2 γ4	14045	N		0.68		31.9		0.292		59.6		325	D	1,980		0.0366		3.84	
TW-38	UBZ-3 γ3	14025	N		0.12		3.5		0.0036		21.2		54	D	551		0.143		0.0032	U
TW-38	UBZ-3 γ3	14026	N	Duplicate	0.12		3.5		0.0037		21.2		53	D	540		0.142		0.0032	U
TW-39	UBZ-2 γ4	14021	N		0.20		30.6		0.397		102		534	D	1,520		0.0131		0.383	
TW-40	UBZ-4 γ3	14049	Y		6.70	D	54.3		0.851	J	354		1,230	D	3,060		0.0140		3.450	
TW-41	UBZ-4 γ3	14054	N		5.57	D	38.5		0.302		162		654	D	1,730		0.0088		0.0339	
TW-43	UBZ-4 γ3	14050	Y		7.26	D	57.1		0.783	J	346		1,170	D	2,960		0.0181		3.31	
TW-44	LBZ-4	14051	Y		4.04	D	12.8		0.00052	U	32.5		115	D	990		0.0017	U	0.051	
TW-45	LBZ-2 γ2	14046	N		0.42		18.1		0.0005	U	46.9		117	D	1,160		0.0017	U	0.0348	
TW-48	UBZ-4 γ3	14057	N		0.07		4.3		0.0015	J	18.7		72	D	553		0.0024	J	0.0065	J
TW-49	UBZ-4 γ3	14048	N		0.10		5.6		0.0025		30.7		111	D	645		0.0017	U	0.0032	U
TW-50	UBZ-4 γ3	14052	N		1.38	D	26.4													

Table 8a: Analytical Results for Wells June 2014 Sample Round

Location	Formation and Zone	Sample Number	Filtered	Sample Type	Phosphorus (Total) (mg/L)	Q	Total Recoverable Potassium (mg/L)	Q	Total Recoverable Selenium (mg/L)	Q	Total Recoverable Sodium (mg/L)	Q	Sulfate (mg/L)	Q	Total Dissolved Solids (mg/L)	Q	Total Recoverable Vanadium (mg/L)	Q	Total Recoverable Zinc (mg/L)	Q
TW-60	UBZ-1 γ4	14032	N		0.29		14.7		0.00052	U	33.3		80	D	1,080		0.0017	U	0.0213	
TW-61	UBZ-1 γ4	14031	N		0.55		16.1		0.00052	U	39.3		101	D	1,170		0.0017	U	0.0152	
TW-62	UBZ-2 γ4	14063	N		0.19		10.9		0.135		58.6		342	D	1,260		0.0017	U	0.0037	J
TW-62	UBZ-2 γ4	14064	N	Duplicate	0.09		10.9		0.138		58.4		343	D	1,270		0.0017	U	0.0045	J
TW-63	UBZ-1 γ5	NS																		
TW-64	UBZ-1 γ5	NS																		
TW-65	UBZ-2 γ4	14080	N		0.09		9.0		0.072		40.0		213	D	1,090		0.0036	J	0.0158	
TW-66	UBZ-2 γ3	14079	N		0.19		11.5		0.031		32.8		159	D	1,100		0.0034	J	0.0203	
TW-67	UBZ-2 γ4/γ3	14076	N		0.37		6.1		0.0035	J	44.1		90	D	554		0.252		0.0032	U
TW-67	UBZ-2 γ4/γ3	14077	N	Split	0.38		5.8		0.0040		41.0		93		584		0.253		< 0.001	
TW-68	UBZ-1 γ5	14075	N		0.20		10.8		0.00052	U	35.3		57	D	824		0.0060		0.0209	
TW-69	UBZ-1 γ5	14073	N		0.22		18.7		0.181		45.1		89	D	1,020		0.0068		0.899	
TW-70	UBZ-2 γ3	14065	N		0.11		10.2		0.088		44.5		257	D	1,220		0.0017	U	0.0032	U
TW-70	UBZ-2 γ3	14066	N	Duplicate	0.11		10.3		0.088		45.2		258	D	1,310		0.0017	U	0.0032	U
TW-71	UBZ-2 γ4	14081	N		0.35		78.0		0.057		170		1,030	D	2,420		0.0048	J	0.731	
TW-72	UBZ-2 γ4	14085	N		1.03	D	107		0.351		236		1,370	D	2,550		0.0264		1.21	
TW-73	UBZ-2 γ4	14086	N		0.54		56.3		0.357		87.7		318	D	1,250		0.0352		1.26	
TW-74	UBZ-4 γ3	14092	N		0.26		9.4		0.050		52.6		163	D	882		0.0049	J	0.0179	
TW-75	UBZ-2 γ4	14088	N		0.75		39.0		0.367		76.9		342	D	1,200		0.0125		0.999	
TW-76	UBZ-2 γ4	14087	N		0.51		19.7		0.409		55.4		150	D	1,090		0.0081		0.0276	
TW-77	UBZ-4 γ2	14082	N		0.34		49.0		0.0021		165		840	D	1,930		0.0017	U	0.0092	J
TW-78	UBZ-4 γ3	14084	N		2.36	D	47.3		0.206		125		365	D	1,090		0.0101		0.281	
TW-79	UBZ-4 γ3	14083	N		0.38		55.5		0.441		105		605	D	1,220		0.0017	U	0.0041	J

Notes:

"- Not applicable

na: not analyzed

ns: no sample

J - The result is an estimated value.

J - The result is an estimated value with low bias.

J+ - The result is an estimated value with high bias.

UJ - The analyte was analyzed for but was not detected.

The reported quantitation limit is approximate and may be inaccurate or imprecise.

U - The analyte was not detected at the method detection limit.

D - A dilution was applied for the analysis

N - Unfiltered

Y - Filtered

Table 8b: Analytical Results for Springs, Surface Water, and Non-Contact Cooling Water June 2014 Sample Round

Location	Formation and Zone	Sample Number	Filtered	Sample Type	Alkalinity (Total) (mg/L as CaCO ₃)	Q	Alkalinity (Carbonate) (mg/L as CaCO ₃)	Q	Alkalinity (Bicarbonate) mg/L as CaCO ₃	Q	Ammonia as N (mg/L)	Q	Total Recoverable Cadmium (mg/L)	Q	Dissolved Cadmium (mg/L)	Q	Total Recoverable Calcium (mg/L)	Q	Dissolved Calcium (mg/L)	Q	Chloride (mg/L)	Q	Fluoride (mg/L)	Q	Total Hardness (mg/L as CaCO ₃)	Q
REMEDIAL GOAL													0.005		0.005							4				
Groundwater - Springs																										
Calf Spring	UBZ-1 γ5?	NS			407		1	U	407		1.060		0.00068	U	0.00069	U	105		103		23.7	D	0.39		462	
Big Spring	UBZ-1 γ5?	14078	Y/N		472		1	U	472		1.970		0.00240		0.00069	U	140		135		41.8	D	1.61		574	
City Park Spring	UBZ-1 γ5?	14124	Y/N		593		1	U	593		0.030	U	0.00068	U	0.00069	U	114		127		40.5	J	0.52		742	
Homestead Spring	UBZ-1 γ5?	14118	Y/N		816		1	U	816		0.555		0.00068	U	0.00069	U	118		122		13.7	D	0.74		817	
MARSH SPRING	UBZ-1 γ5?	14101	Y/N		610		1	U	610		0.030	U	0.00170	J	0.00069	U	123		126		201	D	2.39	D	820	
MC-1 Mormon Creek	UBZ-1 γ5?	14097	Y/N		603		1	U	603		0.030	U	0.01410		0.01430		149		161		96.1	D	2.98	D	957	
Mormon A Spring	UBZ-1 γ5?	14093	Y/N	Split	610		1	U	603		0.05	U	0.01500		0.01500		168		157		118		3.50		1041	
Mormon A Spring	UBZ-1 γ5?	14094	Y/N		635		1	U	635		0.043		0.00068	U	0.00069	U	125		129		134	D	2.06	D	830	
Mormon B Spring	UBZ-1 γ5?	14095	Y/N		509		1	U	509		0.030	U	0.00068	U	0.00069	U	158		160		95.2	D	2.34	D	906	
Mormon C Spring	UBZ-1 γ5?	14096	Y/N		870		1	U	870		0.030	U	0.00370		0.00120	J	125		123		15.8	D	0.78		878	
SW Spring above the confluence with Soda Creek	UBZ-1 γ5?	14098	Y/N		878		1	U	878		0.035		0.00440		0.00360		117		125		15.9	D	1.03		834	
SW Spring at Government Dam Road	UBZ-1 γ5?	14100	Y/N	Duplicate	886		1	U	886		0.030	U	0.00450		0.00350		114		125		16.3	D	1.01		838	
Surface Water/Non-Contact Cooling Water																										
LITTLE SPRING POND DOWN		14102	Y/N		315		19.2	0	296		0.030	U	0.00068	U	0.00069	U	58.8		65		9.1		0.24		310	
LITTLE SPRING POND UP		14103	Y/N		322		16.9	0	305		0.030	U	0.00068	U	0.00069	U	65.6		70		9.0		0.27		334	
Non-Contact Cooling Water 1		14107	Y/N		454		20.1	0	434		0.032		0.00520	J+	0.00550		125		127		487	D	0.50	U	557	
Non-Contact Cooling Water 2		14108	Y/N		454		18.9	0	435		0.030	U	0.00550	J+	0.00520		126		122		494	D	0.50	U	560	
Non-Contact Cooling Water 3		14109	Y/N		454		22.1	0	431		0.030	U	0.00580	J+	0.00510		126		126		491	D	0.50	U	559	
Non-Contact Cooling Water Pond Inlet		14105	Y/N		444		1	U	444		0.030	U	0.00470	J+	0.00460		114		108		92.6	D	0.60		502	
PR-1 Power Return Canal		14113	Y/N		472		1	U	472		0.030	U	0.00100	J	0.00069	U	68.7		77		49.0	J	0.39		466	
SC-01 Soda Up		14106	Y/N		482		1	U	482		0.030	U	0.00068	U	0.00069	U	71.7		67		10.9		0.35		494	
SC-02 Soda Weir		14110	Y/N		483		1	U	483		0.030	U	0.00068	U	0.00069	U	70.4		65		14.2	D	0.33		483	
SC-03 Soda Mid		14112	Y/N		839		1	U	839		0.030	U	0.0027		0.00082	J	109		123		26.1	J	0.73		787	
SC-04 Soda Down		14116	Y/N		828		1	U	828		0.068		0.0015	J	0.00069	U	119		132		39.9	J	0.83		825	
SC-04 Soda Down		14117	Y/N	Split	850		1	U	828		0.070		0.001	U	0.001	U	135		127		45.0		0.50		882	
SC-05 Soda Below Weir		14111	Y/N		543		1	U	543		0.053		0.00068	U	0.00069	U	80.0		79		13.5	D	0.47		548	
SC-06 Soda at Property Line		14115	Y/N		752		1	U	752		0.036		0.00130	J	0.00069	U	115		129		42.2	J	0.75		802	
SC-07 Soda Upstream Power Return		14114	Y/N		612		1	U	612		0.030	U	0.00100	J	0.00069	U	85.6		96		46.5	J	0.49		598	
SC-08 Soda at Octagon Park		14121	Y/N		497		1	U	497		0.030	U	0.00120	J	0.00069	U	74.9		78		44.2	D	0.34		492	
SC-08 Soda at Octagon Park		14122	Y/N	Duplicate	498		1	U	498		0.030	U	0.00081	J	0.00069	U	72.4		78		42.6	D	0.35		477	
SC-09 Soda above Diversion		14123	Y/N		500		1	U	500		0.042		0.00068	U	0.00069	U	73.9		79		40.9	D	0.35		486	
SC-10 Soda at Railroad Bridge		14120	Y/N		617		1	U	617		0.030	U	0.00068	U	0.00069	U	135		141		49.6	D	0.46		707	
SC-11 Soda at Highway 30		14119	Y/N		635		1	U	635		0.030	U	0.00068	U	0.00069	U	135		149		42.0	D	0.55		713	

Notes:

Table 8b: Analytical Results for Springs, Surface Water, and Non-Contact Cooling Water June 2014 Sample Round

Location	Formation and Zone	Sample Number	Filtered	Sample Type	Total Recoverable Magnesium (mg/L)	Q	Dissolved Magnesium (mg/L)	Q	Total Recoverable Manganese (mg/L)	Q	Dissolved Manganese (mg/L)	Q	Total Recoverable Molybdenum (mg/L)	Q	Dissolved Molybdenum (mg/L)	Q	Nitrate and Nitrite as N (mg/L)	Q	Phosphorus (Total) (mg/L)	Q	Total Recoverable Potassium (mg/L)	Q	Dissolved Potassium (mg/L)	Q	
REMEDIAL GOAL									0.18		0.18						10								
Groundwater - Springs																									
Calf Spring	UBZ-1 γ5?	NS			48.7		46.5		0.0013	U	0.0013	U	0.1420		0.1450		4.10		0.03		5.0		5.0		
Big Spring	UBZ-1 γ5?	14078	Y/N		54.4		52.9		0.2910		0.2430		0.0374		0.0432		2.08		2.35	D	12.2		11.9		
City Park Spring	UBZ-1 γ5?	14124	Y/N		111		118.0		0.0013	U	0.0013	U	0.0027		0.0027	U	11.60	D	0.14		6.8		7.2		
Homestead Spring	UBZ-1 γ5?	14118	Y/N		127		133.0		0.4540		0.4900		0.0027		0.0027	U	0.05	U	0.46		13.6		13.9		
MARSH SPRING	UBZ-1 γ5?	14101	Y/N		124		129.0		0.0155		0.0131		0.0283		0.0286		2.55		0.23		16.6		17.1		
MC-1 Mormon Creek	UBZ-1 γ5?	14097	Y/N		142		146.0		0.0013	U	0.0013	U	0.0541		0.0591		2.07		0.34		22.0		22.9		
Mormon A Spring	UBZ-1 γ5?	14093	Y/N		151		145.2		0.0010	U	0.0010	U	0.0540		0.0500		5.63		0.35		22.6		21.4		
Mormon B Spring	UBZ-1 γ5?	14095	Y/N	Split	126		132.0		0.0013	U	0.0013	U	0.0242		0.0251		5.23	D	0.26		14.7		15.1		
Mormon C Spring	UBZ-1 γ5?	14096	Y/N		125		128.0		0.0013	U	0.0013	U	0.0246		0.0249		7.18	D	0.19		20.5		21.0		
SW Spring above the confluence with Soda Creek	UBZ-1 γ5?	14098	Y/N		137		140.0		0.0527		0.0456		0.0146		0.0148		1.70		0.20		12.9		12.6		
SW Spring at Government Dam Road	UBZ-1 γ5?	14099	Y/N		132		137.0		0.0377		0.0412		0.0113		0.0152		1.89		0.19		11.7		12.6		
SW Spring at Government Dam Road	UBZ-1 γ5?	14100	Y/N	Duplicate	134		136.0		0.0378		0.0411		0.0107		0.0149		1.97		0.19		11.4		12.6		
Surface Water/Non-Contact Cooling Water																									
LITTLE SPRING POND DOWN		14102	Y/N		39.7		43.9		0.0013	U	0.0013	U	0.0456		0.0539		0.24		0.02		2.2		2.5		
LITTLE SPRING POND UP		14103	Y/N		41.3		43.6		0.0013	U	0.0013	U	0.0457		0.0523		0.49		0.01	U	2.5		2.7		
Non-Contact Cooling Water 1		14107	Y/N		59.4		60.1		0.0013	U	0.0013	U	0.0322		0.0249		3.71		0.55		6.7		6.5		
Non-Contact Cooling Water 2		14108	Y/N		59.8		58.0		0.0013	U	0.0013	U	0.0324		0.0242		3.66		0.56		6.8		6.2		
Non-Contact Cooling Water 3		14109	Y/N		59.5		59.7		0.0013	U	0.0013	U	0.0326		0.0226		3.70		0.56		6.8		6.4		
Non-Contact Cooling Water Pond Inlet		14105	Y/N		52.4		51.8		0.0013	U	0.0013	U	0.0318		0.0255		3.93		0.44		5.8		5.5		
PR-1 Power Return Canal		14113	Y/N		71.5		77.1		0.1040		0.0898		0.0027		U	0.0034	J	0.38		0.10		8.2		8.7	
SC-01 Soda Up		14106	Y/N		76.5		72.6		0.1230		0.0974		0.0027		U	0.0027	U	0.16		0.08		8.8		7.9	
SC-02 Soda Weir		14110	Y/N		74.5		70.4		0.1110		0.0915		0.0027		U	0.0027	U	0.41		0.07		8.7		7.8	
SC-03 Soda Mid		14112	Y/N		125		138.0		0.1040		0.0997		0.0120		0.0125		1.26		0.17		12.0		13.0		
SC-04 Soda Down		14116	Y/N		128		140.0		0.1280		0.1240		0.0135		0.0136		1.04	J+	0.13		13.3		14.1		
SC-04 Soda Down		14117	Y/N	Split	133		134.1		0.1230		0.1220		0.0120		0.0110		0.88		0.15		13.2		12.6		
SC-05 Soda Below Weir		14111	Y/N		84.7		84.3		0.1680		0.1530		0.0027		U	0.0027	U	0.07		0.15		9.7		9.0	
SC-06 Soda at Property Line		14115	Y/N		125		136.0		0.0846		0.0727		0.0111		0.0124		1.13		0.17		12.9		13.8		
SC-07 Soda Upstream Power Return		14114	Y/N		93.3		101.0		0.0795		0.0731		0.0059	J	0.0077	J	0.75		0.13		10.0		10.8		
SC-08 Soda at Octagon Park		14121	Y/N		74.0		75.9		0.2010		0.0963		0.0027		U	0.0030	U	0.38		0.27		8.2		8.6	
SC-08 Soda at Octagon Park		14122	Y/N	Duplicate	71.8		75.3		0.1520		0.0948		0.0027		U	0.0029	J	0.39		0.24		7.8		8.5	
SC-09 Soda above Diversion		14123	Y/N		73.1		75.5		0.1040		0.0974		0.0027		U	0.0032	J	0.40		0.12		8.1		8.6	
SC-10 Soda at Railroad Bridge		14120	Y/N		90.0		92.1		0.0814		0.0751		0.0027		U	0.0030	J	0.05	U	0.17		10.7		11.3	
SC-11 Soda at Highway 30		14119	Y/N		91.2		95.8		0.0737		0.0825		0.0027		U	0.0027	U	0.05	U	0.02		10.5		11.5	

Notes:

a. 0.005 mg/L is State of Idaho aquatic criterion

" Not applicable

na: not analyzed

ns: no sample

J - The result is an estimated value.

J - The result is an estimated value with low bias.

J+ - The result is an estimated value with high bias.

UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

U - The analyte was not detected at the method detection limit.

D - A

Table 8b: Analytical Results for Springs, Surface Water, and Non-Contact Cooling Water June 2014 Sample Round

Location	Formation and Zone	Sample Number	Filtered	Sample Type	Total Recoverable Selenium (mg/L)	Q	Dissolved Selenium (mg/L)	Q	Total Recoverable Sodium (mg/L)	Q	Dissolved Sodium (mg/L)	Q	Sulfate (mg/L)	Q	Total Dissolved Solids (mg/L)	Q	Total Recoverable Vanadium (mg/L)	Q	Dissolved Vanadium (mg/L)	Q	Total Recoverable Zinc (mg/L)	Q	Dissolved Zinc (mg/L)	Q	
REMEDIAL GOAL					0.05/0.005 ^a		0.05/0.005 ^a																		
Groundwater - Springs																									
Calf Spring	UBZ-1 γ5?	NS																							
Big Spring	UBZ-1 γ5?	14078	Y/N		0.0025		0.0024		33.2		31.2		67	D	467		0.0033	J	0.0022	J	0.0053	J	0.0032	U	
City Park Spring	UBZ-1 γ5?	14124	Y/N		0.0028		0.0023		38.4		38.2		109	D	782		0.0234		0.0090		0.1440		0.0621		
Homestead Spring	UBZ-1 γ5?	14118	Y/N		0.0387	J	0.0374	J	38.5		40.5		149	D	863		0.0017	U	0.0036	J	0.0032	U	0.0032	U	
MARSH SPRING	UBZ-1 γ5?	14101	Y/N		0.00023	U	0.00023	U	32.5		34.0		59	D	863		0.0017	U	0.0017	U	0.0032	U	0.0032	U	
MC-1 Mormon Creek	UBZ-1 γ5?	14097	Y/N		0.193	J	0.1510		153.0		160.0		266	D	1300		0.0063		0.0062		0.0442		0.0289		
Mormon A Spring	UBZ-1 γ5?	14093	Y/N		0.280		0.3070		86.6		84.2		404	D	1350		0.0153		0.0131		0.2160		0.2110		
Mormon A Spring	UBZ-1 γ5?	14094	Y/N	Split	0.320		0.3180		84.9		81.1		314		1362		0.0160		0.0150		0.2250		0.2200		
Mormon B Spring	UBZ-1 γ5?	14095	Y/N		0.162		0.1660		110.0		115.0		247	D	1170		0.0044	J	0.0049	J	0.0032	U	0.0032	U	
Mormon C Spring	UBZ-1 γ5?	14096	Y/N		0.222		0.2310		76.3		78.5		401	D	1270		0.0058		0.0054		0.0032	U	0.0032	U	
SW Spring above the confluence with Soda Creek	UBZ-1 γ5?	14098	Y/N		0.0214		0.0208		41.3		41.9		59	D	911		0.0038	J	0.0035	J	0.0651		0.0527		
SW Spring at Government Dam Road	UBZ-1 γ5?	14099	Y/N		0.0201		0.0196		39.0		39.1		57	D	920		0.0044	J	0.0033	J	0.0692		0.0653		
SW Spring at Government Dam Road	UBZ-1 γ5?	14100	Y/N	Duplicate	0.0201		0.0217		36.9		39.1		57	D	916		0.0045	J	0.0032	J	0.0713		0.0655		
Surface Water/Non-Contact Cooling Water																									
LITTLE SPRING POND DOWN		14102	Y/N		0.0011	J	0.0012	J	13.0		14.7		42		362		0.0107		0.0105		0.0035	J	0.0032	U	
LITTLE SPRING POND UP		14103	Y/N		0.0013	J	0.0013	J	13.1		14.3		41		359		0.0136		0.0135		0.0043	J	0.0032	U	
Non-Contact Cooling Water 1		14107	Y/N		0.0127	J	0.0124		304.0		331.0		134	D	1350		0.0501		0.0523		0.0162		0.0235		
Non-Contact Cooling Water 2		14108	Y/N		0.0132	J	0.0134		308.0		321.0		134	D	1350		0.0499		0.0512		0.0157		0.0220		
Non-Contact Cooling Water 3		14109	Y/N		0.0126	J	0.0125		306.0		328.0		135	D	1320		0.0505		0.0512		0.0162		0.0226		
Non-Contact Cooling Water Pond Inlet		14105	Y/N		0.0102	J	0.0107		90.7		88.1		125	D	767		0.0539		0.0527		0.0149		0.0188		
PR-1 Power Return Canal		14113	Y/N		0.0010	J	0.0010	J	47.4		51.3		47	D	599		0.0017	U	0.0040	J	0.0032	U	0.0032	U	
SC-01 Soda Up		14106	Y/N		0.00023	UJ	0.00023	U	22.7		20.9		43		512		0.0017	U	0.0017	U	0.0032	U	0.0064	J	
SC-02 Soda Weir		14110	Y/N		0.00023	UJ	0.00023	U	24.6		22.9		44		524		0.0017	U	0.0017	U	0.0032	U	0.0058	J	
SC-03 Soda Mid		14112	Y/N		0.0171	J	0.0172	J	39.0		42.8		61	D	857		0.0017	U	0.0024	J	0.0422		0.0369		
SC-04 Soda Down		14116	Y/N		0.032	J	0.0295	J	54.9		60.3		85	D	942		0.0017	U	0.0027	J	0.0246		0.0193		
SC-04 Soda Down		14117	Y/N	Split	0.033		0.0330		54.1		51.6		87		994		0.0040		0.0070		0.0230		0.0440		
SC-05 Soda Below Weir		14111	Y/N		0.00023	UJ	0.00023	U	25.5		24.7		48		598		0.0017	U	0.0017	U	0.0039	J	0.0099	J	
SC-06 Soda at Property Line		14115	Y/N		0.0281	J	0.0274	J	53.8		58.8		68	D	882		0.0017	U	0.0029	J	0.0160		0.0055	J	
SC-07 Soda Upstream Power Return		14114	Y/N		0.0118	J	0.0111	J	48.9		53.8		63	D	718		0.0017	U	0.0032	J	0.0068	J	0.0032	U	
SC-08 Soda at Octagon Park		14121	Y/N		0.0015	J	0.0014	J	45.7		45.8		49	D	596		0.0082		0.0035	J	0.0136		0.0032	U	
SC-08 Soda at Octagon Park		14122	Y/N	Duplicate	0.0014	J	0.0014	J	43.4		45.8		47	D	600		0.0068		0.0033	J	0.0105		0.0032	U	
SC-09 Soda above Diversion		14123	Y/N		0.0014	J	0.0012	J	41.3		43.8		50	D	603		0.0052		0.0031	J	0.0087	J	0.0032	U	
SC-10 Soda at Railroad Bridge		14120	Y/N		0.0010	J	0.0010	J	51.2		49.8		149	D	862		0.0032	J	0.0017	U	0.0096	J	0.0032	J	
SC-11 Soda at Highway 30		14119	Y/N		0.0009	J	0.0009	J	41.6		43.4		162	D	882		0.0020	J	0.0017	U	0.0069	J	0.0032	U	

Notes:

a. 0.005 mg/L is State of Idaho aquatic criterion

" " Not applicable

na: not analyzed

ns: no sample

Table 9: June 2014 Results Compared to Remediation Goals

Location	Sample Number	Formation	Cadmium (mg/L)	Q	Fluoride (mg/L)	Q	Manganese (mg/L)	Q	Nitrate and Nitrite as N (mg/L)	Q	Selenium (mg/L)	Q
REMEDIATION GOAL			0.005		4		0.18		10		0.05	
Groundwater												
Harris Well	14033	UBZ-2 γ4	0.00068	U	2.68	D	0.0013	U	7.13	D	0.316	
Mormon A Spring ¹	14093	UBZ-1 γ5?	0.0141		2.98	D	0.0013	U	2.07		0.280	
Mormon A Spring (split)	14094	UBZ-1 γ5?	0.0150		3.50		0.0010	U	5.63		0.320	
PW-01	14091	UBZ,LBZ-4	0.0410		1.02		0.0013	U	4.38	D	0.037	
PW-02	14090	UBZ,LBZ-4	0.0108		0.45		0.0013	U	4.19		0.012	
PW-03	14089	UBZ,LBZ-4	0.0025		0.42		0.0013	U	3.43		0.0097	
PW-04	14036	UBZ,LBZ-4	0.00068	U	0.29		0.0013	U	4.28		0.0016	J
TW-20	14019	UBZ-2 γ4	0.0091		2.91		0.0013	U	14.3	D	0.240	
TW-34 ²	14020	UBZ-2 γ3	0.00068	U	0.63		0.162		0.43		0.01900	
TW-35 ²	14022	UBZ-2 γ3	0.00068	U	0.10	U	0.161		0.05	U	0.00052	U
TW-35 (duplicate)	14023	UBZ-2 γ3	0.00068	U	0.50	U	0.158		0.05	U	0.00052	U
TW-39	14021	UBZ-2 γ4	0.02480		4.63		0.0013	U	6.65	D	0.397	
TW-53	14071	UBZ-1 γ5	0.00068	U	2.76		0.0013	U	6.33	D	0.259	
TW-54	14069	UBZ-2 γ4	0.0024		2.33		0.0013	U	9.62	D	0.377	
TW-54 (split)	14070	UBZ-2 γ4	0.0030		1.60		0.0010	U	9.24		0.355	
TW-55	14067	UBZ-2 γ3	0.00068	U	0.70		0.0013	U	4.26		0.031	
TW-55 (split)	14068	UBZ-2 γ3	0.001	U	0.30		0.0010	U	3.45		0.029	
Surface Water												
SC-04 Soda Down	14116		0.00150	J	0.83		0.128		1.04		0.032	
SC-04 Soda Down (split)	14117		0.001	U	0.50		0.123		0.88		0.033	
SC-01 Soda Up	14106		0.00068	U	0.35		0.123		0.16		0.00023	U

Notes:

Results in bold indicate remediation goal is exceeded.

1. Alternate point of compliance location for the Harris Well.

2. Natural background.

Q stands for "Qualifier", where:

J - The result is an estimated value. J- is estimated with low bias; J+ is estimated with high bias.

UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

U - The analyte was not detected at the method detection limit.

D - A dilution was applied

Table 10: June 2014 Measured Spring Discharge and Streamflows

Stream or Spring	Location	June 2014		Notes/Measurement Method
		Streamflow (cfs)	Streamflow (gpm)	
Soda Creek	SC-01 Soda Up	47.5	21,333	Swoffer
	SC-02 Soda at Diversion Weir	58.8	26,407	Swoffer
	SC-05 Soda Creek below Diversion	0.77	348	Swoffer
	SC-03 Soda Mid	0.19	84	Swoffer
	SC-04 Soda Down	0.11	51	Swoffer
	SC-06 Soda Creek at Property Line	0.24	106	Swoffer
	SC-07 Soda Creek above Power Return	0.91	407	Swoffer
	SC-08 Soda Creek at Octagon Park	47.8	21,454	Swoffer
	SC-09 Soda Creek above Diversion		Not Measured	Unsafe access, high flows
	SC-10 Soda Creek at Railroad Bridge	1.92	861	Swoffer
	SC-11 Soda Creek at Highway 30	1.46	654	Swoffer
Non-Contact Cooling Water	Non-Contact Cooling Water Discharge		0	From Monsanto
Power Canal	PR-1 Power Canal	56	25,136	Swoffer
Mormon Creek (tributary)	Calf Spring		Not Measured	Calf Spring was dry
	Mormon A	0.07	30	Bucket and stop watch
	Mormon B	0.02	9	Bucket and stop watch
	Mormon C	0.01	5	Bucket and stop watch
	MC-1 Mormon Creek	0.17	76	Swoffer
Southwest Spring (tributary)	At Government Dam Road	0.38	171	Swoffer
	Upstream of Soda Creek Confluence	0.58	260	Swoffer
Homestead Spring (tributary)	Homestead Spring		0.2	Pyrex measuring cup and stop watch
Little Spring Pond Creek	Upstream of pond	0.4	180	Swoffer
	Crossing at E 1st St	0.1	27	Swoffer

Table 11: Short-Term Constituent Concentration Trends at Point of Compliance Wells and Soda Creek

Location	Formation	Cadmium	Fluoride	Manganese	Nitrate as N	Selenium	Chloride ^a	Molybdenum ^a	Sulfate ^a
Remediation Goal (mg/L)		0.005	4	0.18	10	0.05	n/a	n/a	n/a
Groundwater									
Production Wells									
PW-01	UBZ,LBZ-4	↑ N	↔ Y	↔ Y	↔ Y	↓ Y	↓	↔	↑
PW-02	UBZ,LBZ-4	↑ N	↔ Y	↔ Y	↔ Y	↓ Y	↓	↔	↔
PW-03	UBZ,LBZ-4	↔ Y	↔ Y	↔ Y	↔ Y	↔ Y	↓	↔	↔
PW-04	UBZ,LBZ-4	↔ Y	↔ Y	↔ Y	↔ Y	↔ Y	↔	↔	↔
Southern Plant Fence Line									
TW-20	UBZ-2 γ4	↑ N	↑ Y	↔ Y	↑ N	↔ N	↔	↔	↔
TW-34	UBZ-2 γ3	↔ Y	↔ Y	↓ Y	↔ Y	↔ Y	↔	↔	↑
TW-35	UBZ-2 γ3	↔ Y	↔ Y	↔ Y	↔ Y	↔ Y	↔	↔	↔
TW-39	UBZ-2 γ4	↑ N	↑ N	↔ Y	↓ Y	↓ N	↓	↔	↓
South of Plant (Former Harris Property)									
TW-53	UBZ-1 γ5	↔ Y	↔ Y	↔ Y	↔ Y	↑ N	↔	↔	↑
TW-54	UBZ-2 γ4	↔ Y	↔ Y	↔ Y	↔ Y	↔ N	↔	↓	↔
TW-55	UBZ-2 γ3	↔ Y	↔ Y	↔ Y	↔ Y	↔ Y	↔	↔	↔
Mormon A Spring ^b	UBZ-1 γ5?	↔ Y	↔ Y	↔ Y	↓ Y	↓ N	↔	↔	↓
Harris Well	UBZ-2 γ4	↔ Y	↔ Y	↔ Y	↔ Y	↔ N	↔	↓	↑
Soda Creek Surface Water/Non-Contact Cooling Water Discharge									
Soda Up Station (SC-01)	-	↔ Y	↔ Y	↔ Y	↔ Y	↔ Y	↔	↔	↔
Soda Down Station (SC-04)	-	↔ Y	↔ Y	↔ Y	↔ Y	↓ Y	↔	↔	↔
Non-Contact Cooling Water Discharge	-	↔ Y	↔ Y	↔ Y	↔ Y	↓ Y	↑	↔	↔

Notes:

a. Constituents included for illustrative purposes only, no remediation goal

b. Proposed alternative point of compliance for Harris Well

* Natural Background

- ↔ Concentrations relatively stable overall in the past 5 years (2010 to 2014)
 ↓ Concentrations decreased overall in the past 5 years (2010 to 2014)
 ↑ Concentrations increased overall in the past 5 years (2010 to 2014)
 Y Equal to or less than EPA Remediation Goal in June 2014
 N Greater than EPA Remediation Goal in June 2014

Table 12: Short-Term Constituent Concentration Trends at Other Wells and Springs

Location	Formation	Cadmium	Fluoride	Manganese	Nitrate as N	Selenium	Chloride	Molybdenum	Sulfate
NW Pond									
TW-29 (background)	UBZ-4 γ3	↔	↔	↔	↔	↔	↔	↔	↔
TW-16	UBZ-4 γ3	↔	↔	↔	↔	↑	↔	↔	↔
TW-17	UBZ-4 γ3	↑	↔	↑	↔	↑	↔	↓	↑
TW-18	LBZ-4	↔	↑	↑	↔	↔	↑	↔	↑
Old UFS Ponds and Tailings Pond Area									
TW-57 (background)	UBZ-2 γ5?	↔	↔	↔	↑	↔	↔	↔	↔
TW-22	UBZ-2 γ4?	↔	↔	↔	↔	↔	↔	↓	↔
TW-24	UBZ-2 γ4	↔	↔	↔	↔	↔	↔	↔	↔
TW-37	UBZ-2 γ4	↑	↓	↔	↔	↔	↑	↓	↔
TW-45	LBZ-2 γ2	↔	↔	↔	↔	↔	↔	↔	↔
UFS Piles									
TW-48	UBZ-4 γ3	↔	↔	↔	↔	↔	↔	↔	↔
TW-49	UBZ-4 γ3	↔	↔	↔	↔	↔	↔	↔	↑
TW-50	UBZ-4 γ3	↔	↑	↑	↓	↓	↑	↔	↑
Old Hydroclarifier and Plant Area Wells									
TW-40	UBZ-4 γ3	↑	↔	↔	↔	↑	↔	↔	↑
TW-43	UBZ-4 γ3	↔	↔	↔	↓	↔	↑	↓	↑
TW-44	LBZ-4	↔	↔	↔	↔	↔	↔	↔	↑
TW-26	LBZ-4	↔	↔	↔	↔	↔	↓	↓	↔
Southwest Corner Wells									
TW-07 ^b	UBZ-1 γ4	↔	↔	↑	↔	↔	↔	↔	↔
TW-08	UBZ-1 γ3	↔	↔	↔	↔	↔	↔	↔	↔
TW-10	UBZ-1 γ5	↔	↑	↔	↑	↑	↓	↑	↔
Monitoring Wells South and Southwest of Plant									
TW-59	UBZ-2 γ4	↔	↔	↔	↑	↓	↔	↔	↓
TW-60	UBZ-1 γ4	↔	↔	↓	↔	↔	↔	↔	↔
TW-61	UBZ-1 γ4	↔	↑	↔	↔	↔	↔	↔	↔
TW-62	UBZ-2 γ4	↔	↔	↓	↑	↓	↔	↔	↓
TW-70 ^b	UBZ-2 γ3	↔	↔	↔	↔	↓	↔	↔	↔
Property Line Wells									
TW-65 ^b	UBZ-2 γ4	↔	↔	↔	↔	↔	↔	↔	↔
TW-66 ^b	UBZ-2 γ3	↔	↔	↓	↔	↔	↔	↔	↔
TW-67 ^b	UBZ-2 γ4/γ3	↔	↔	↔	↓	↔	↔	↔	↔
Wells West of Plant									
TW-68 ^b	UBZ-1 γ5	↔	↔	↔	↓	↔	↔	↔	↔
TW-69 ^b	UBZ-1 γ5	↑	↔	↔	↓	↓	↔	↔	↔
Springs									
Homestead Spring	UBZ-1 γ5?	↔	↔	↔	↑	↔	↔	↔	↑
Mormon A Spring	UBZ-1 γ5?	↔	↔	↔	↓	↓	↔	↔	↓
Calf Spring ^a	UBZ-1 γ5?	↑	↔	↑	↓	↔	↔	↓	↔

Notes:

- ↔ Concentrations relatively stable overall in the past 5 years (2010 to 2014)
 ↓ Concentrations decreased overall in the past 5 years (2010 to 2014)
 ↑ Concentrations increased overall in the past 5 years (2010 to 2014)

a. Calf Spring was dry in 2013 and 2014, reflects trend from 2008 to 2012.

b. Wells installed in 2011, concentration trends are from 2011 to 2014.

Table 13: June 2014 UBZ-4 Results Compared to 1993 to 2013 Results

Location	Well and Interflow Zone	Constituent of Concern	Maximum Concentration		Minimum Concentration		June 2014 Concentration (mg/L)	June 2014 Concentration - Percent Reduction from Maximum
			(mg/L)	Year	(mg/L)	Year		
Northwest Pond	TW-16 (γ 4)	Cadmium ¹	1.49	1984	0.432	2012	0.450	-70%
		Fluoride	3.7	1994	1.69	2010	2.05	-45%
		Manganese	0.06	1993	<0.001	1998	<0.0013	NA
		Nitrate as N	7.5	1997	4.33	2013	4.96	-34%
		Selenium	0.442	1993	0.0566	2007	0.177	-60%
	TW-17 (γ 4?)	Cadmium ¹	0.087	1985	0.0015	2007	0.0066	-92%
		Fluoride	2.78	2013	1.5	2009	2.52	-9%
		Manganese	3.16	2013	1.47	1993	3.00	-5%
		Nitrate as N	0.481	2011	<0.01	1995	0.395	-18%
		Selenium	0.058	2013	<0.002	2000	0.129	122%
	TW-18 (LBZ)	Cadmium ¹	0.013	1986	<0.0002	2000	<0.00068	NA
		Fluoride	0.64	2012	<0.1	2003	0.80	25%
		Manganese	0.66	2013	0.36	1993	0.70	6%
		Nitrate as N	0.061	2011	0.01	1997	<0.05	NA
		Selenium	0.0013	2013	<0.0001	2011	<0.00052	NA
Old Hydroclarifier and Plant Area	TW-40 (γ 3)	Cadmium ¹	70.4	1985	0.809	1995	2.21	-97%
		Fluoride	6.3	1997	2.92	2009	3.89	-38%
		Manganese	0.46	1993	0.01	2010	0.0077	-98%
		Nitrate as N	19.3	1999	5.2	1995	16.6	-14%
		Selenium	1.12	2003	0.282	2007	0.851	-24%
	TW-43 (γ 3)	Cadmium ¹	62.5	1985	1.5	2012	2.38	-96%
		Fluoride	6.2	1993	3.93	2012	3.90	-37%
		Manganese	0.42	1993	0.0071	2013	0.014	-97%
		Nitrate as N	15.7	2004	10.5	2013	5.3	-66%
		Selenium	1.19	2003	0.343	2007	0.783	-34%
	TW-44 (LBZ-4)	Cadmium	0.0269	1994	<0.002	2003	0.00070	-97%
		Fluoride	1.4	2000	0.288	2005	0.61	-56%
		Manganese	0.24	2000	0.18	1997	0.226	-6%
		Nitrate as N	1.5	2000	<0.01	1997	<0.05	NA
		Selenium	0.015	1994	<0.0001	2011	<0.00052	NA
	TW-26 (UBZ-4 γ 2)	Cadmium ¹	0.021	1986	<0.00059	2012	<0.00068	NA
		Fluoride	2.01	2011	0.94	1993	1.44	-28%
		Manganese	0.95	1995	0.54	2005	0.504	-47%
		Nitrate as N	9.49	1994	3.1	1997	4.94	-48%
		Selenium	0.608	1994	0.032	2004	0.363	-40%
Underflow Solids Piles	TW-48 (UBZ-4 γ 3)	Cadmium	0.0021	2004	<0.00013	2009	<0.00068	NA
		Fluoride	0.36	2012	0.19	1993	0.29	-19%
		Manganese	0.11	2004	<0.0015	2009	<0.0013	NA
		Nitrate as N	6.27	2012	3.84	2003	4.91	-22%
		Selenium	0.026	2003	0.0017	2013	0.0015	-94%
	TW-49 (UBZ-4 γ 3)	Cadmium	0.0101	1993	<0.00013	2009	<0.00068	NA
		Fluoride	0.565	2002	0.1	2011	0.35	-38%
		Manganese	0.0095	2011	<0.001	1994	<0.0013	NA
		Nitrate as N	4.8	1999	3.21	2008	3.840	-20%
		Selenium	0.0047	2009	0.002	1995	0.0025	-47%
	TW-50 (UBZ-4 γ 3)	Cadmium	0.0307	2005	<0.0002	1997	0.0079	-74%
		Fluoride	1.16	2013	0.29	2006	1.28	10%
		Manganese	0.756	2010	0.392	1997	0.805	6%
		Nitrate as N	1.48	2008	0.65	2004	0.558	-62%
		Selenium	0.0892	2010	0.002	1995	0.0210	-76%

Table 13: June 2014 UBZ-4 Results Compared to 1993 to 2013 Results

Location	Well and Interflow Zone	Constituent of Concern	Maximum Concentration		Minimum Concentration		June 2014 Concentration (mg/L)	June 2014 Concentration - Percent Reduction from Maximum
			(mg/L)	Year	(mg/L)	Year		
Plant Production Wells	PW-01 (UBZ/LBZ-4)	Cadmium ¹	0.243	1986	0.0261	2003	0.041	-83%
		Fluoride	1.3	1991	0.46	2003	1.02	-22%
		Manganese	Not Detected				<0.0013	NA
		Nitrate as N	5.88	1993	3.5	2001	4.38	-26%
		Selenium	0.098	2005	0.0167	2007	0.0369	-62%
	PW-02 (UBZ/LBZ-4)	Cadmium ¹	0.027	1985	0.0016	2006	0.0108	-60%
		Fluoride	0.9	2001	0.175	2005	0.45	-50%
		Manganese	0.02	1993	0.001	1994	<0.0013	NA
		Nitrate as N	5.23	2012	3.31	2004	4.19	-20%
		Selenium	0.038	2010	0.006	2007	0.0120	-68%
	PW-03 (UBZ/LBZ-4)	Cadmium ¹	0.016	1985	<0.002	2001	0.0025	-84%
		Fluoride	0.66	2002	0.13	2006	0.42	-36%
		Manganese	0.005	1999	0.001	1994	<0.0013	NA
		Nitrate as N	5.43	1993	3.08	2003	3.43	-37%
		Selenium	0.025	1994	0.0050	2001	0.0097	-61%

Notes:

1. The highest concentrations were observed prior to 1993.

J - The result is an estimated value.

UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

U - The analyte was not detected at the method detection limit.

Shaded cells represent the maximum observed concentration between 1993 and 2013 for all stations

Analytical data from primary lab

NA: Not applicable because of non-detects

Table 14: June 2014 UBZ-1 Results Compared to 1993 to 2013 Results

Location	Well and Interflow Zone	Constituent of Concern	Maximum Concentration		Minimum Concentration		June 2014 Concentration (mg/L)	June 2014 Concentration - Percent Reduction from Maximum
			(mg/L)	Year	(mg/L)	Year		
UBZ-1 West of Government Dam Road	TW-60 (UBZ-1 γ4)	Cadmium	<0.002	2007	<0.0005	2011	<0.00068	NA
		Fluoride	0.407	2010	<0.1	2007	1.02	151%
		Manganese	6.27	2009	5.36	2012	5.21	-17%
		Nitrate as N	<0.05	2012	<0.02	2007	0.351	NA
		Selenium	0.0007	2008	<0.0001	2011	<0.00052	NA
	TW-61 (UBZ-1 γ4)	Cadmium	<0.002	2007	<0.0005	2011	<0.00068	NA
		Fluoride	1.12	2013	<0.1	2007	1.04	-7%
		Manganese	0.542	2013	0.447	2012	0.50	-9%
		Nitrate as N	0.876	2012	<0.05	2012	0.352	-60%
		Selenium	0.0011	2008	<0.0001	2011	<0.00052	NA
Southwest Corner	TW-08 (UBZ-1 γ3)	Cadmium	<0.002	2003	<0.0047	2011	<0.00068	NA
		Fluoride	0.68	2012	<0.1	2006	<0.1	NA
		Manganese	0.13	1996	0.1	2012	0.099	-24%
		Nitrate as N	0.042	1996	<0.02	2007	<0.05	NA
		Selenium	0.011	2003	<0.00012	2012	<0.00052	NA
	TW-10 (UBZ-1 γ5)	Cadmium	0.006	1993	<0.0005	2011	<0.00068	NA
		Fluoride	2.43	2013	0.23	2004	2.47	2%
		Manganese	0.009	1994	<0.001	2008	<0.0013	NA
		Nitrate as N	8.33	2005	3.3	1994	6.02	-28%
		Selenium	0.366	2012	0.0376	1993	0.267	-27%
South of Plant	Lewis Well (UBZ-2 γ3 and γ4?)	Cadmium	<0.0086	1994	<0.00047	2011	<0.00068	NA
		Fluoride	0.73	2002	0.2	2007	0.51	-30%
		Manganese	0.015	1993	<0.001	2012	<0.0013	NA
		Nitrate as N	12.2	1993	5.05	2004	6.73	-45%
		Selenium	0.07	1994	0.0085	2007	0.024	-66%
Springs	Southwest Spring (UBZ-1)	Cadmium	0.0067	1993	0.002	2003	0.0044	-34%
		Fluoride	1.2	1996	0.27	2007	1.03	-14%
		Manganese	0.062	1997	0.011	2010	0.0377	-39%
		Nitrate as N	2.2	1998	1.3	2000	1.89	-14%
		Selenium	0.059	2006	0.0102	1994	0.0201	-66%
	Calf Spring (UBZ-1) - Dry in 2014	Cadmium	0.605	2008	<0.005	1993	No Sample	NA
		Fluoride	5.4	1996	0.2	2007	No Sample	NA
		Manganese	14.7	2007	<0.001	2000	No Sample	NA
		Nitrate as N	9.4	1997	0.151	2008	No Sample	NA
		Selenium	0.49	2008	0.14	1999	No Sample	NA
	Homestead Spring (UBZ-1)	Cadmium	<0.0092	1992	<0.0005	2010	<0.00068	NA
		Fluoride	0.73	2002	0.202	2008	0.52	-29%
		Manganese	0.098	2009	<0.0014	2012	<0.0013	NA
		Nitrate as N	15	2006	5.87	2001	11.6	-23%
		Selenium	0.0492	2010	0.0057	1994	0.0387	-21%
	Mormon Creek	Cadmium	0.0084	2008	<0.002	2006	0.0017	-80%
		Fluoride	2.86	2007	1.0	2004	2.39	-16%
		Manganese	0.035	2012	0.009	2003	0.0155	-56%
		Nitrate as N	7.89	2011	1.48	2004	2.55	-68%
		Selenium	0.235	2011	0.071	2002	0.193	-18%

Notes:

1. The highest concentrations were observed prior to 1993.

Shaded cells represent the maximum observed concentration between 1993 and 2013 for all stations except the Soda Down station (2001 through 2013)

Analytical data from primary lab

NA - Not applicable because of non-detects or no sample

Table 15: June 2014 UBZ-2 Results Compared to 1993 to 2013 Results

Location	Well and Interflow Zone	Constituent of Concern	Maximum Concentration		Minimum Concentration		June 2014 Concentration (mg/L)	June 2014 Concentration - Percent Reduction from Maximum
			(mg/L)	Year	(mg/L)	Year		
Old Underflow Solids Ponds/Tailings Pond	TW-22 (γ4)	Cadmium ¹	0.07	1984	0.0224	1995	0.0236	-66%
		Fluoride	8.3	1997	2.46	2010	3.06	-63%
		Manganese	1.34	1997	0.737	2010	0.658	-51%
		Nitrate as N	9.3	1999	2.82	2013	3.90	-58%
		Selenium	0.33	1999	0.105	2007	0.180	-45%
	TW-24 (γ4?)	Cadmium	0.331	1994	0.19	1999	0.255	-23%
		Fluoride	9.0	1996	4.28	2008	4.39	-51%
		Manganese	0.329	2004	0.136	1999	0.256	-22%
		Nitrate as N	8.4	2000	4.32	2004	4.22	-50%
		Selenium	0.47	1997	0.036	2006	0.238	-49%
	TW-37 (γ4)	Cadmium ¹	1.210	1986	0.0027	2013	0.879	-27%
		Fluoride	16	1997	7.7	2013	7.44	-54%
		Manganese	1.35	1994	0.494	1997	0.748	-45%
		Nitrate as N	11.2	2006	5.94	1994	8.32	-26%
		Selenium	0.935	1993	0.162	2007	0.292	-69%
South Plant Fence Line	TW-20 (γ4)	Cadmium	0.0113	2005	0.0021	1994	0.0091	-19%
		Fluoride	5.5	1994	1.39	2013	2.91	-47%
		Manganese	0.0473	1994	<0.0013	2008	<0.0013	NA
		Nitrate as N	20.7	2006	4.57	2011	14.3	-31%
		Selenium	0.432	2005	0.028	2000	0.240	-44%
	TW-34 (γ3)	Cadmium	0.0067 U	1993	<0.00013	2009	<0.00068	NA
		Fluoride	0.711	2002	<0.01	1998	0.63	-11%
		Manganese	0.516	1995	0.149	2013	0.1620	-69%
		Nitrate as N	1.12	2002	<0.02	1993	0.43	-62%
		Selenium	0.020	2013	0.001	1995	0.019	-5%
	TW-35 (γ3)	Cadmium	0.0067 U	1993	<0.0002	2006	<0.00068	NA
		Fluoride	0.601	2002	<0.1	2011	<0.50	NA
		Manganese	0.168	2002	0.135	2005	0.1580	-6%
		Nitrate as N	0.3 U	1993	<0.01	1997	<0.05	NA
		Selenium	0.01 U	2003	<0.0001	2011	<0.00052	NA
South of Plant (Harris Property)	TW-39 (γ4)	Cadmium	0.0279	1994	0.0093	2007	0.0248	-11%
		Fluoride	5.3	1995	1.96	2004	4.63	-13%
		Manganese	0.06 U	2002	<0.001	2000	<0.0013	NA
		Nitrate as N	15	1997	3.79	2002	6.65	-56%
		Selenium	0.494	2010	0.03	2006	0.397	-20%
	TW-53 (γ5)	Cadmium	0.007 U	1994	<0.0002	2000	<0.00068	NA
		Fluoride	3.65	2009	0.79	1993	2.76	-24%
		Manganese	0.06 U	2002	<0.001	1999	<0.0013	NA
		Nitrate as N	10.1	1993	4.49	2001	6.33	-37%
		Selenium	0.344	1995	0.0791	2001	0.259	-25%
	TW-54 (γ4)	Cadmium	0.0176	2002	<0.0004	2000	0.0024	-86%
		Fluoride	7.4	1997	2.24	2003	2.33	-69%
		Manganese	0.06 U	2002	<0.001	1997	<0.0013	NA
		Nitrate as N	12.7	2006	1.04	2002	9.62	-24%
		Selenium	0.635	1993	0.05	2000	0.377	-41%
	TW-55 (γ3)	Cadmium	0.0094 U	1994	<0.0002	2000	<0.00068	NA
		Fluoride	1.48	2009	<0.1	2006	0.70	-53%
		Manganese	0.06 U	2002	<0.001	2008	<0.0013	NA
		Nitrate as N	4.15	2007	2.58	2003	4.26	3%
		Selenium	0.206	1991	0.013	2001	0.031	-85%

Table 15: June 2014 UBZ-2 Results Compared to 1993 to 2013 Results

Location	Well and Interflow Zone	Constituent of Concern	Maximum Concentration		Minimum Concentration		June 2014 Concentration (mg/L)	June 2014 Concentration - Percent Reduction from Maximum
			(mg/L)	Year	(mg/L)	Year		
Mormon A Spring and Harris Well	Mormon A Spring (γ 5)	Cadmium	0.018	1997	0.0115	2004	0.0141	-22%
		Fluoride	5.9	1996	1.94	2004	2.98	-49%
		Manganese	0.06 U	2002	<0.001	2000	<0.0013	NA
		Nitrate as N	9.71	2011	4.4	1994	2.07	-79%
		Selenium	0.366	2008	0.136	2007	0.280	-23%
	Harris Well (γ 4)	Cadmium	0.0092 U	1994	<0.0002	2000	<0.00068	NA
		Fluoride	4.4	1997	0.87	1993	2.68	-39%
		Manganese	0.06 U	2002	<0.001	2000	<0.0013	NA
		Nitrate as N	9.11	2012	4.6	1993	7.13	-22%
		Selenium	0.408	1994	0.080	2000	0.316	-23%
South of Plant	TW-59 (UBZ-2 γ 4)	Cadmium	<0.002	2007	<0.0005	2011	<0.00068	NA
		Fluoride	0.384	2010	<0.1	2011	0.62	61%
		Manganese	0.0101	2010	<0.004	2007	0.0014	-100%
		Nitrate as N	6.90	2012	5.03	2009	6.85	-1%
		Selenium	0.129	2008	0.068	2013	0.081	-37%
	TW-62 (UBZ-2 γ 4)	Cadmium	<0.002	2007	<0.0005	2011	<0.00068	NA
		Fluoride	0.61	2013	<0.1	2011	0.73	20%
		Manganese	0.068	2008	<0.004	2007	<0.0013	NA
		Nitrate as N	6.72	2013	4.89	2009	6.98	4%
		Selenium	0.17	2008	0.0456	2007	0.135	-21%
Soda Creek	Soda Down SC-04 (2001 to 2013)	Cadmium	0.0082	2008	0.0018 J	6/2008	0.00150	-82%
		Fluoride	1.1	2001	0.418	2005	0.83	-25%
		Manganese	0.228	2008	0.066	2006	0.1280	-44%
		Nitrate as N	2.14	2009	0.36	2003	1.04	-51%
		Selenium	0.0563	2009	0.0112	2007	0.032	-43%

Notes:

1. The highest concentrations were observed prior to 1993.

J - The result is an estimated value.

UJ - The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate

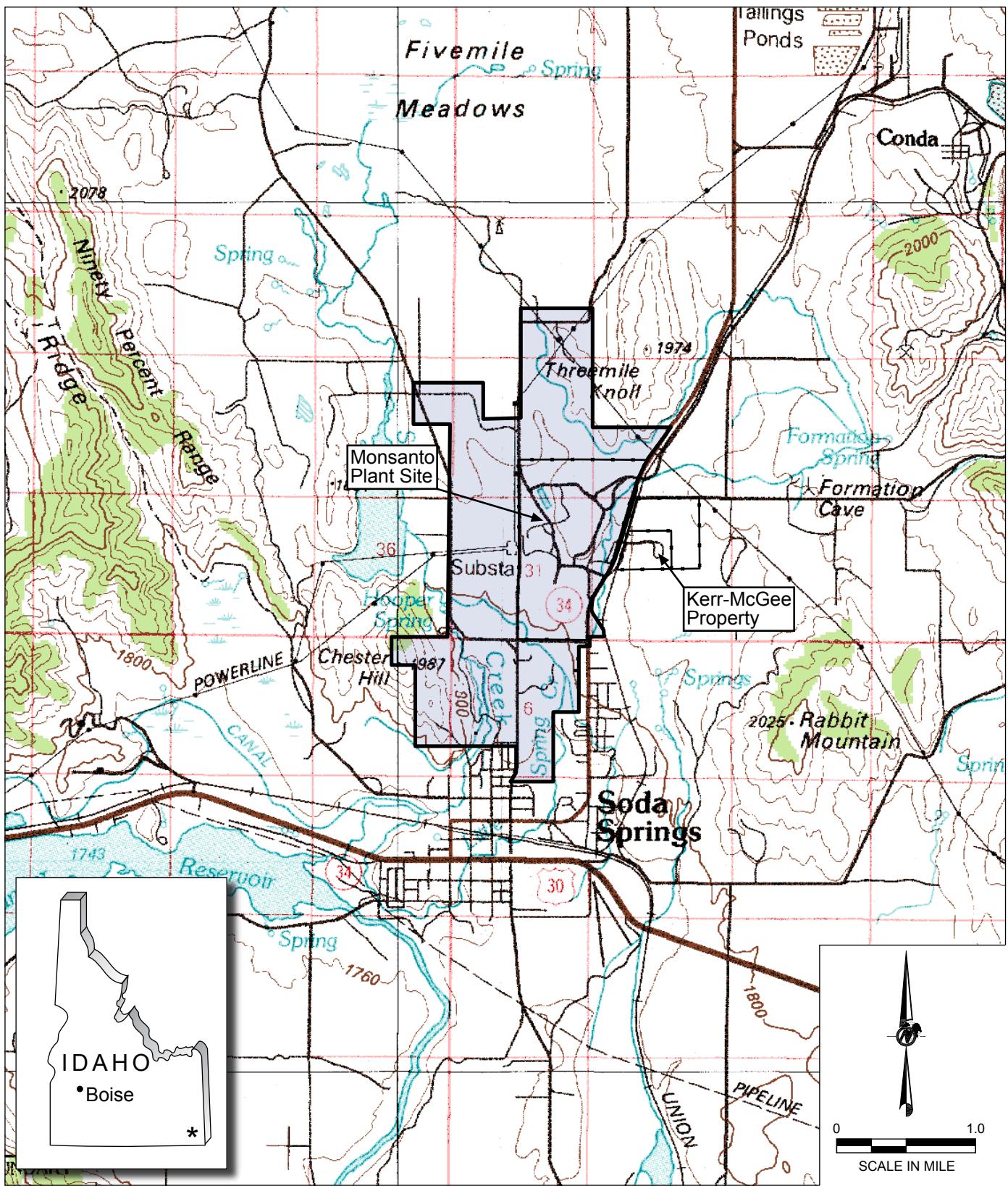
U - The analyte was not detected at the method detection limit.

Shaded cells represent the maximum observed concentration between 1993 and 2013 for all stations except the Soda Down station (2001 through 2013)

Analytical data from primary lab

NA - Not applicable because of non-detects

FIGURES



Source: Topographic map of the USGS Soda Springs Quadrangle (1:100,000) 1982.

CLIENT

MONSANTO COMPANY

CONSULTANT



YYYY-MM-DD 2014-11-04

PREPARED A.PARKIN

DESIGN

REVIEW

APPROVED

PROJECT

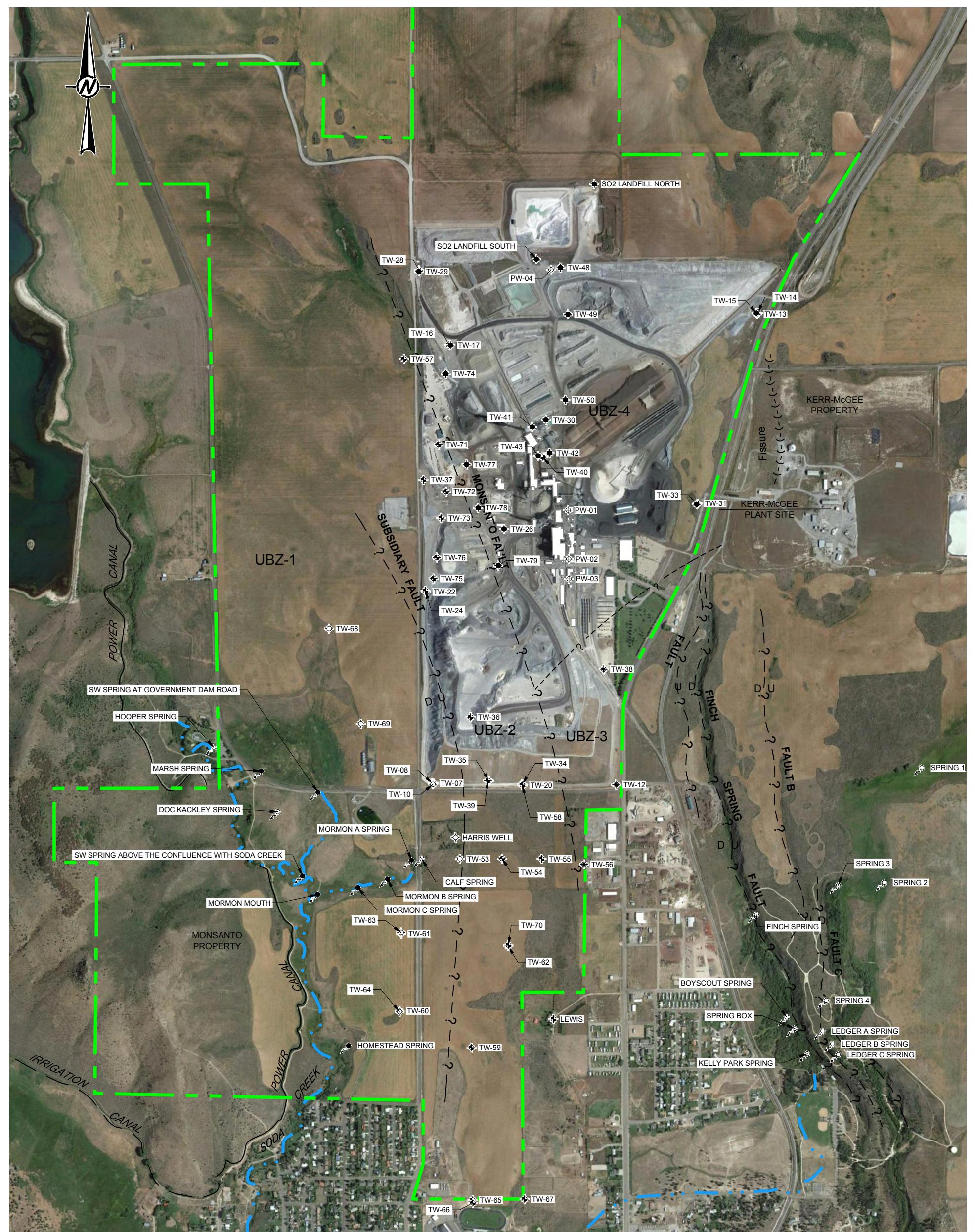
2014 ANNUAL REPORT

TITLE

MONSANTO PLANT VICINITY MAP

PROJECT No. 913-1101-004 PHASE 001.1G

FIGURE



AEGARD

— — ? — $\frac{U}{D}$? — FAULT

UBZ-1 GROUNDWATER ZONE INSTITUTIONAL CONTROL

BOUND

CREEK

POWER CANAL

卷之三

**SPRING LOCATIONS
WITH NAME (WHERE KNOWN)**

**SPRING LOCATION (NOT SAMPLED)
WITH NAME (WHERE KNOWN)**

100

- TW-60

TW-59

- TW-56

† TW 28

[View more photos from this shoot](#)

**MONITORING WELL LOCATION WITH NAME
I GROUNDWATER ZONE UBZ-1**

MONITORING WELL LOCATION WITH NAME
GROUNDWATER ZONE LBZ 2

MONITORING WELL LOCATION WITH NAME

MONITORING WELL LOCATION WITH NAME

0 600 1200 1800

FEET

**PROJECT
2014 ANNUAL REPORT**

TITLE
LOCATION OF SPRINGS AND WELLS IN THE UPPER BASALT

NOTES

- NOTES**

 1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
 2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).





LEGEND

— — ? — — ? —	FAULT
- - - - - - - - - - - - - - - -	FISSURE
LBZ-1	GROUNDWATER ZONE
— — — — —	INSTITUTIONAL CONTROL BOUNDARY
— - - - -	CREEK
— — — — —	POWER CANAL
— — — — —	IRRIGATION CANAL

TW-60	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-1
TW-59	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-2
TW-56	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-3
TW-28	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-4
PW-1	PRODUCTION WELL LOCATION WITH NAME

0 500 1000 1500 FEET

CLIENT
MONSANTO

PROJECT
2014 ANNUAL REPORT
SODA SPRINGS, IDAHO

CONSULTANT



YYYY-MM-DD 2014-12-05

PREPARED SES

DESIGN MK

REVIEW MK

APPROVED DB

TITLE

LOCATION OF WELLS IN LOWER BASALT ZONE

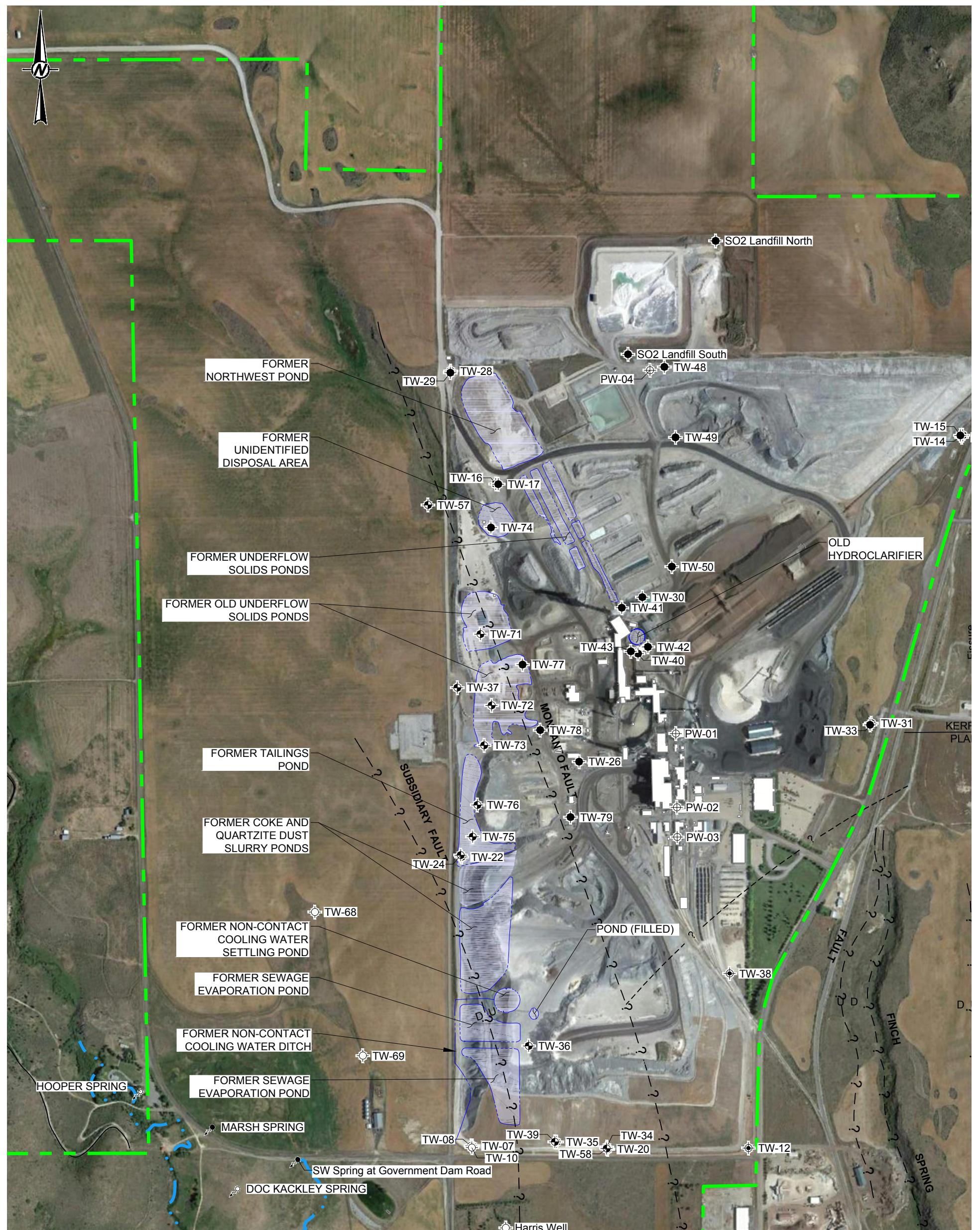
PROJECT No. 913-1101.004 CONTROL .001.1I

Rev. A

FIGURE 3

NOTES

- NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
- AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).



LEGEND

— ? — ^U _D ? —	FAULT	SPRING LOCATION WITH NAME (WHERE KNOWN)	MORMON A	TW-60	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-1
- - - - - - - - - - - - - - -	FISSURE	SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC	TW-59	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-2
GROUNDWATER ZONE		SURFACE WATER LOCATION WITH NAME	MORMON CREEK	TW-56	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-3
— — — — —	INSTITUTIONAL CONTROL BOUNDARY			TW-28	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-4
— - - - -	CREEK			PW-1	PRODUCTION WELL LOCATION WITH NAME
— — — — —	POWER CANAL				
— — — — —	IRRIGATION CANAL				

0 400 800
SCALE FEET

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B



CLIENT
MONSANTO

CONSULTANT

YYYY-MM-DD 2014-12-05

PREPARED SES

DESIGN MK

REVIEW MK

APPROVED DB

PROJECT
2014 ANNUAL REPORT
SODA SPRINGS, IDAHO

TITLE
HISTORICAL INFERRED SOURCE AREAS

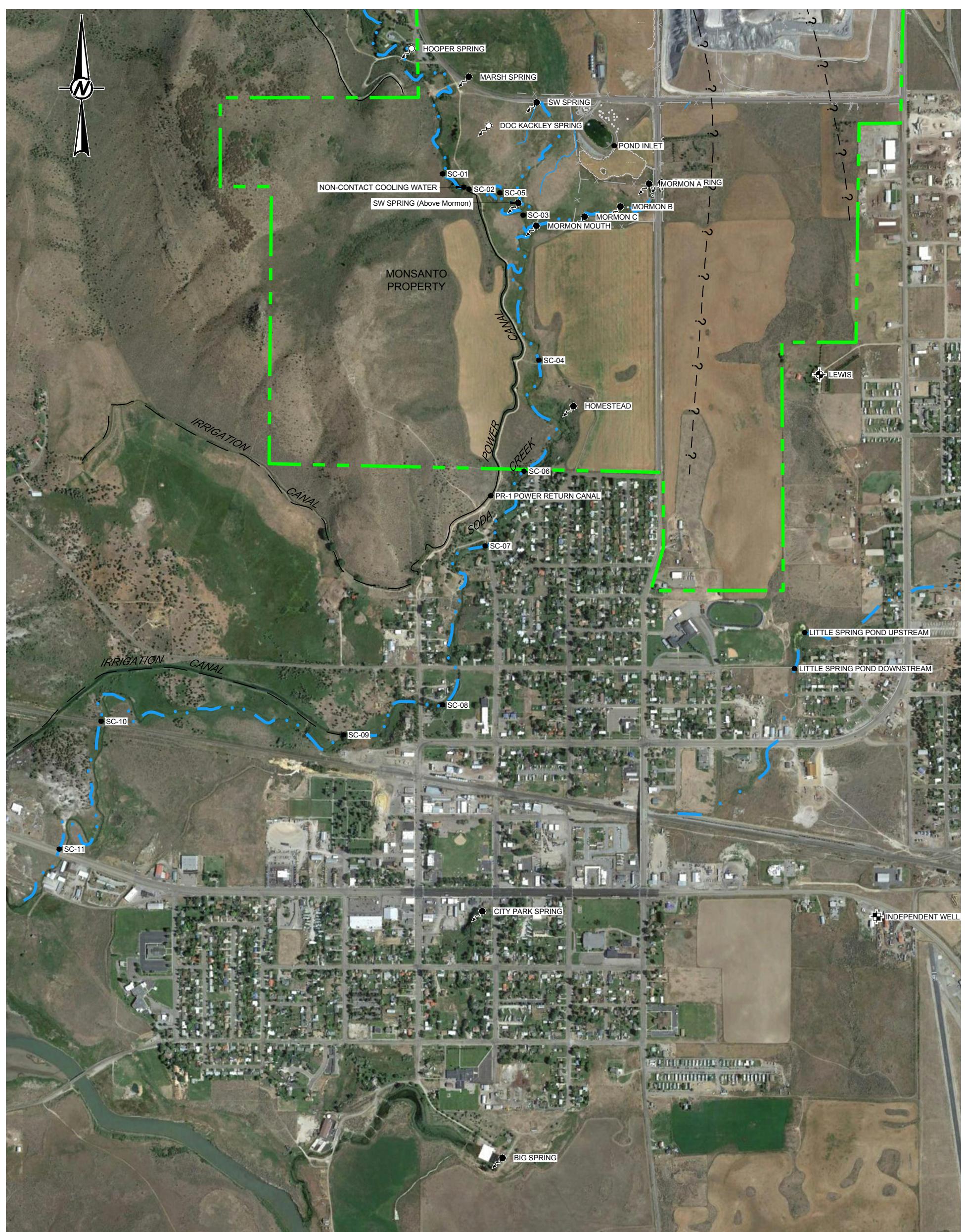
PROJECT No. 931-1101.004 CONTROL 001.1I

Rev. A

FIGURE 5

NOTES

- NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
- AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).



LEGEND

— ? — $\frac{U}{D}$? —	FAULT
- - - - -	FISSURE
— — — — —	INSTITUTIONAL CONTROL BOUNDARY
— - - - -	CREEK
— - - - -	POWER CANAL
— - - - -	IRRIGATION CANAL
●	SC-09 SURFACE WATER SAMPLE LOCATION WITH NAME
○	HOOPER SPRING SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)
●	BIG SPRING SPRING LOCATION WITH NAME (WHERE KNOWN)
■	INDEPENDENT WELL WELL LOCATION WITH NAME
□	LEWIS MONITORING WELL LOCATION IN GROUNDWATER ZONE UBZ-2

0 500 1000 1500 FEET

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

CLIENT
MONSANTO

PROJECT
2014 ANNUAL REPORT
SODA SPRINGS, IDAHO

CONSULTANT

YYYY-MM-DD 2014-12-05

PREPARED SES

DESIGN MK

REVIEW MK

APPROVED DB

TITLE

PRIVATE WELLS, SPRINGS AND SODA CREEK SAMPLING LOCATIONS

PROJECT No. 913-1101.004 CONTROL .001.11

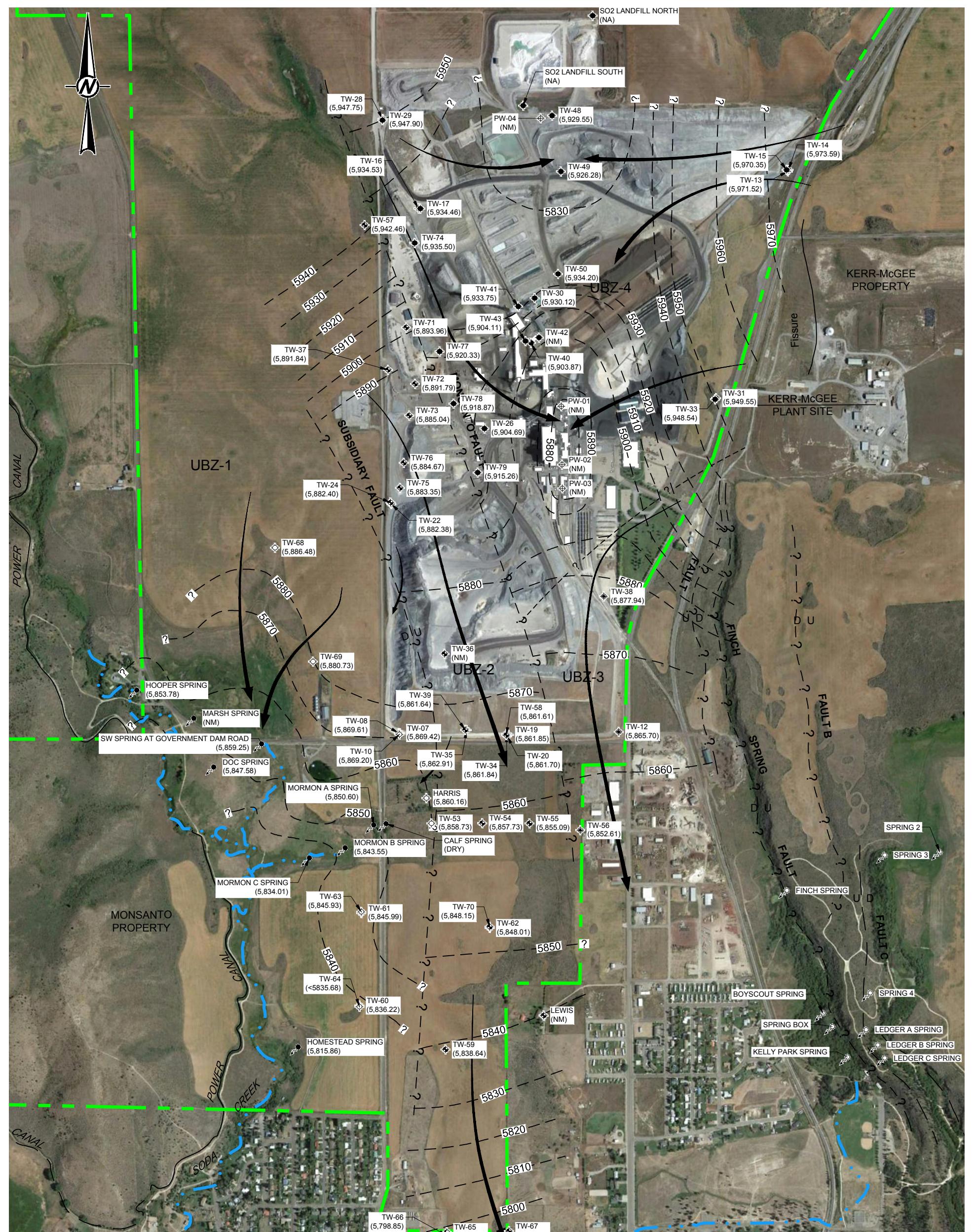
Rev. ----

FIGURE 6

NOTES

- NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
- AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).





LEGEND

— ? — $\frac{U}{D}$? —	FAULT
- - - - -	FISSURE
UBZ-1	GROUNDWATER ZONE
— — — — —	INSTITUTIONAL CONTROL BOUNDARY
— —	CREEK
— — — — —	POWER CANAL
— — — — —	IRRIGATION CANAL
— — — — —	GROUNDWATER FLOW DIRECTION
— — — — —	GROUNDWATER CONTOUR (10 FOOT INTERVAL)

SPRING LOCATION WITH NAME (WHERE KNOWN)	MORMON A
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC
SURFACE WATER LOCATION WITH NAME	MORMON CREEK
GROUNDWATER ELEVATION (FEET) WITH QUALIFIER (IF ANY)	TW-60 (5837.68)
(ND) = NO DATA	TW-59 (5839.05)
	TW-56 (5853.05)
	TW-28 (5948.04)
	PW-1 (ND)

MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-1 AND GROUNDWATER ELEVATION
MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-2 AND GROUNDWATER ELEVATION
MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-3 AND GROUNDWATER ELEVATION
MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-4 AND GROUNDWATER ELEVATION
PRODUCTION WELL LOCATION WITH NAME

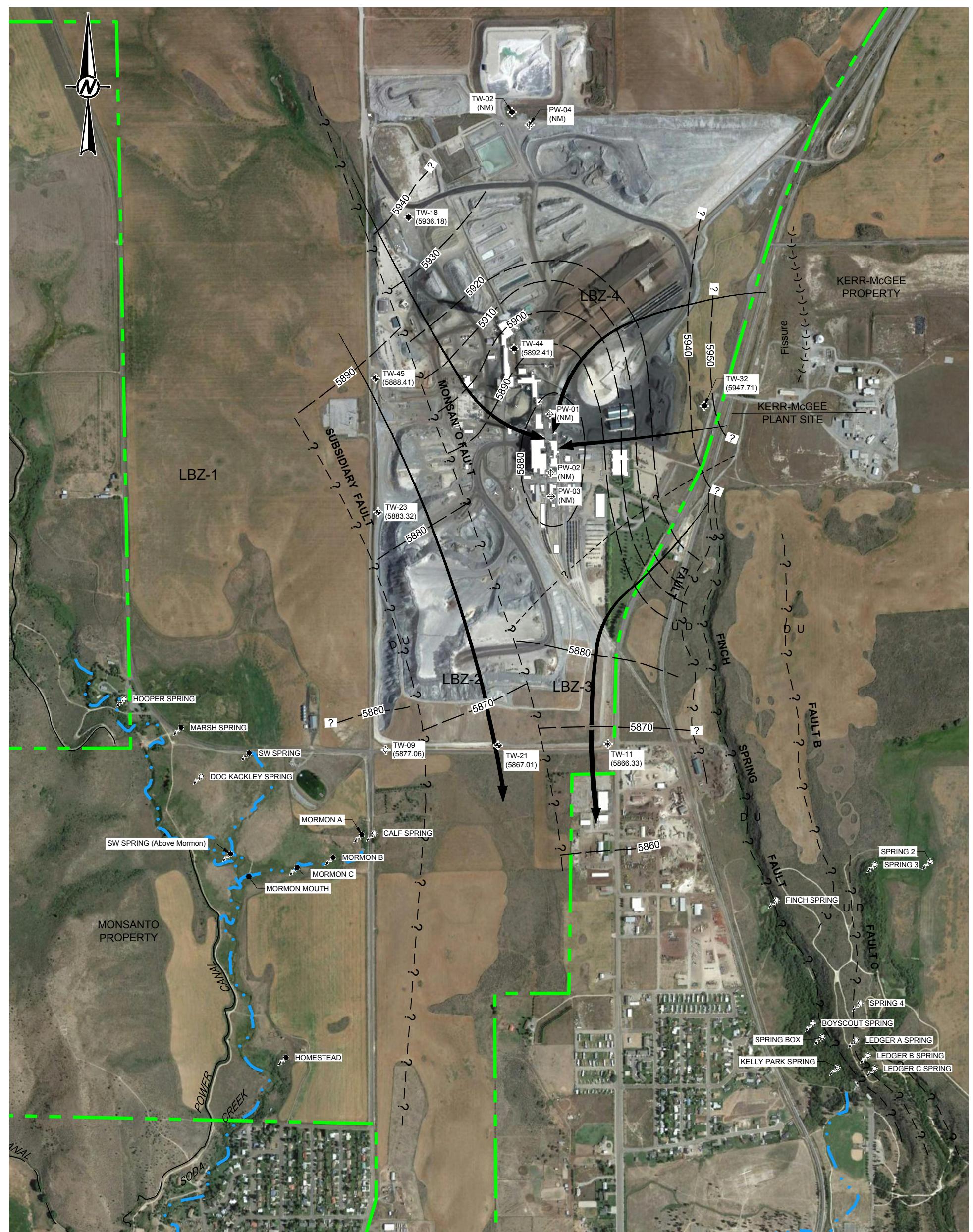
0 500 1000 1500 FEET

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B



CLIENT: MONSANTO
CONSULTANT: Golder Associates
YYYY-MM-DD: 2014-12-05
PREPARED: SES
DESIGN: MK
REVIEW: MK
APPROVED: DB
PROJECT: 2014 ANNUAL REPORT
SODA SPRINGS, IDAHO
TITLE: GROUNDWATER ELEVATION IN THE UPPER BASALT ZONE (JUNE 2014)
PROJECT No.: 913-1101.004
CONTROL: .001.1I
Rev. A
FIGURE 7

1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).



LEGEND

— ? — $\frac{U}{D}$? —	FAULT
- - - - -	FISSURE
— GROUNDWATER ZONE	GROUNDWATER ZONE
— INSTITUTIONAL CONTROL BOUNDARY	INSTITUTIONAL CONTROL BOUNDARY
— CREEK	CREEK
— POWER CANAL	POWER CANAL
— IRRIGATION CANAL	IRRIGATION CANAL
— GROUNDWATER FLOW DIRECTION	GROUNDWATER FLOW DIRECTION
— GROUNDWATER CONTOUR (10 FOOT INTERVAL)	GROUNDWATER CONTOUR (10 FOOT INTERVAL)

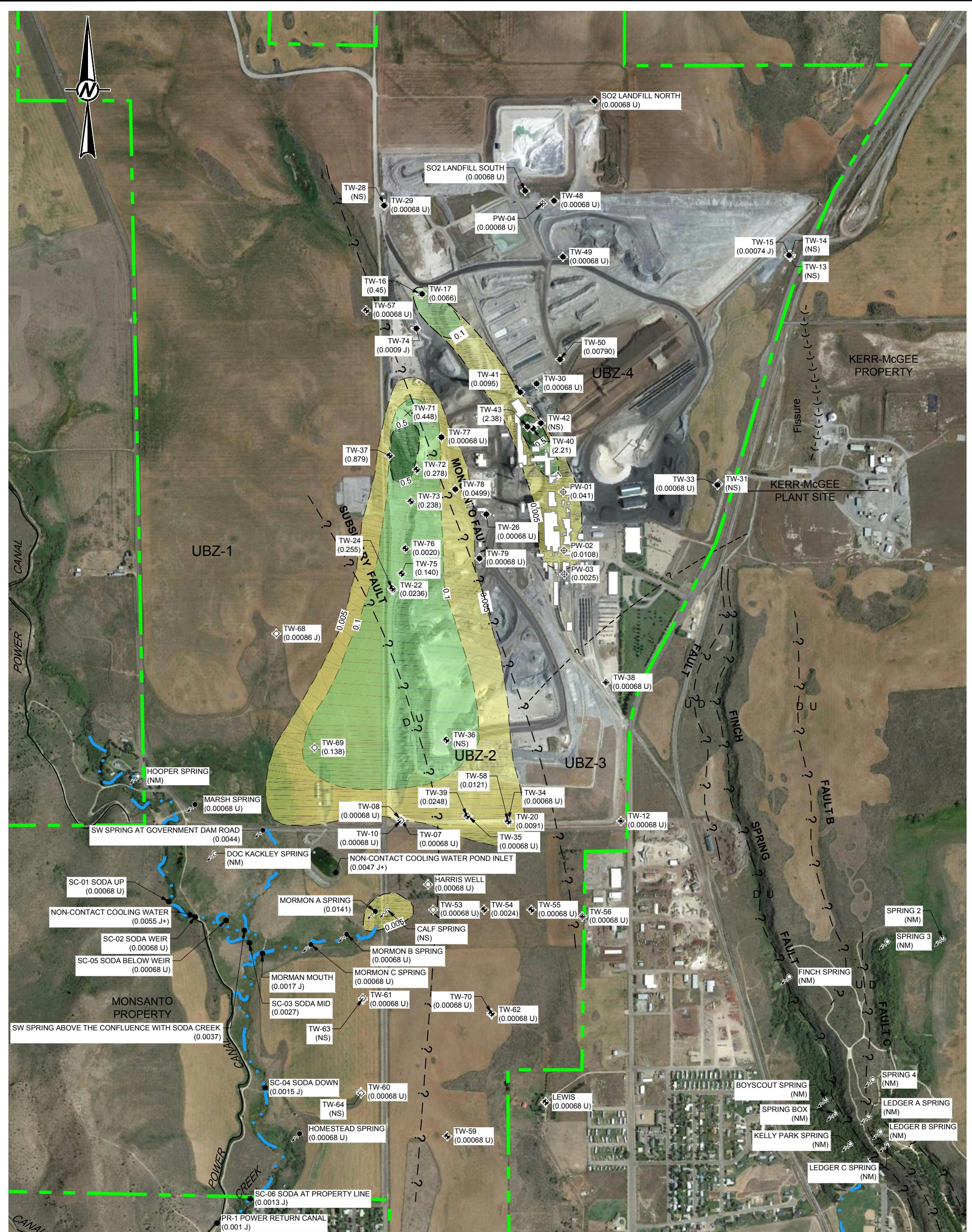
NOTES

- NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
- AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).

CLIENT
MONSANTO

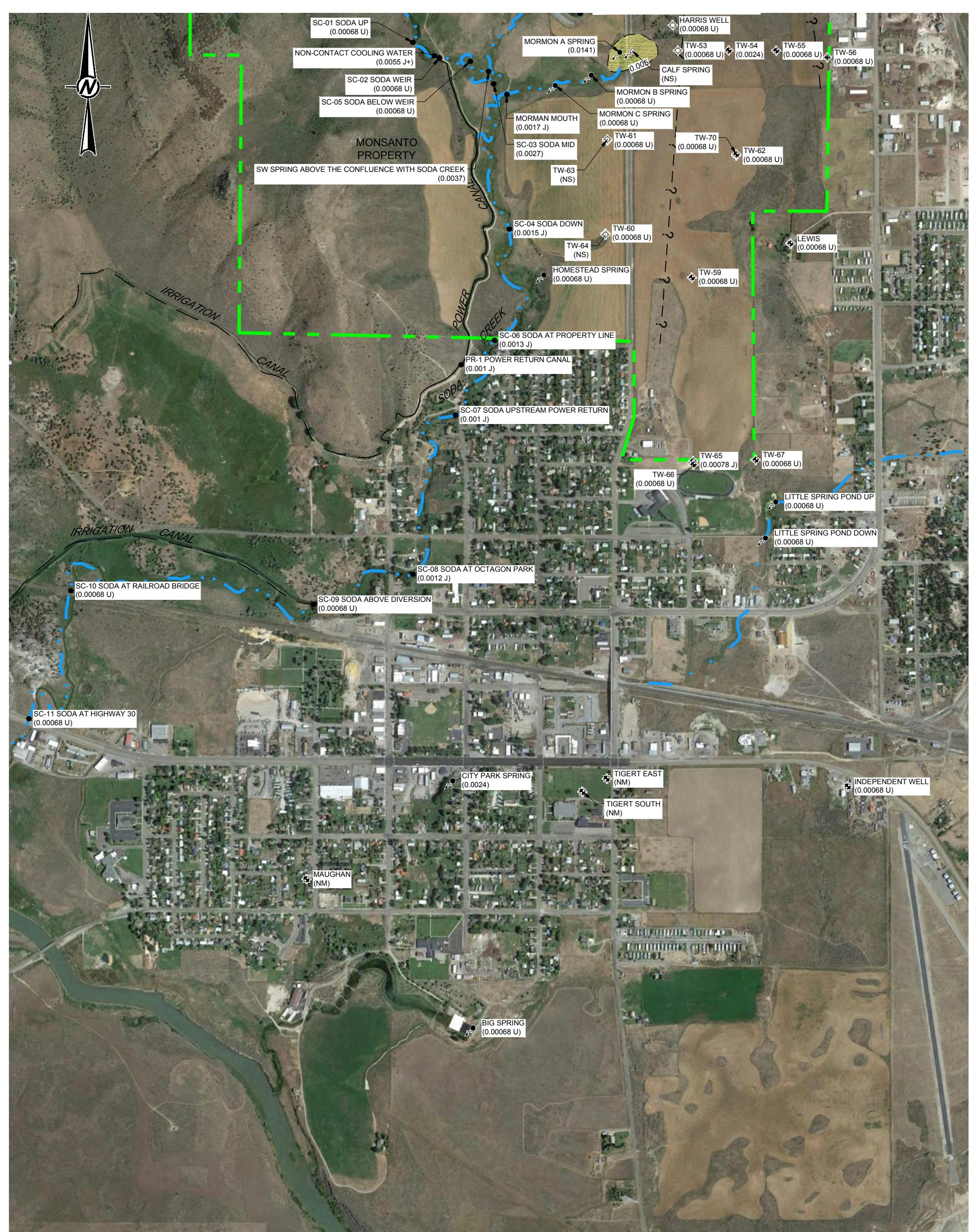
CONSULTANT

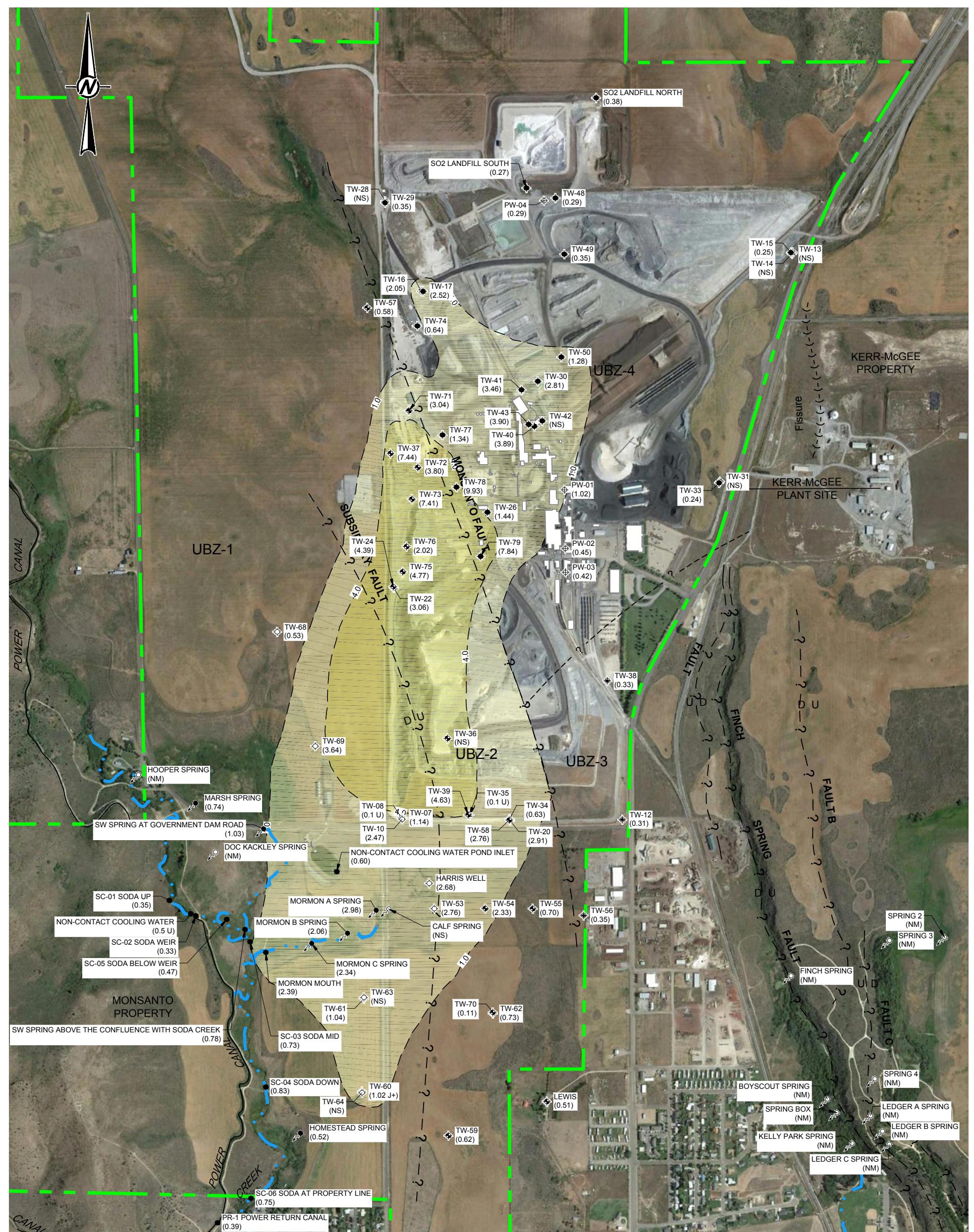
YYYY-MM-DD
2014-12-05PROJECT
2014 ANNUAL REPORT
SODA SPRINGS, IDAHOTITLE
GROUNDWATER ELEVATIONS IN THE LOWER BASALT ZONE
(JUNE 2014)PROJECT No.
913-1101.004CONTROL
.001.1IRev.
AFIGURE
8



LEGEND

SPRING LOCATION WITH NAME (WHERE KNOWN)	(0.015)	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-1	---	FAULT
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-2	- - - - -	FISSURE
SURFACE WATER LOCATION WITH NAME	MORMON CREEK (NM)	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-3	---	GROUNDWATER ZONE
WELL LOCATION IN SODA SPRINGS WITH NAME	(NM)	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-4	---	INSTITUTIONAL CONTROL BOUNDARY
SAMPLE: CHEMICAL CONCENTRATION (mg/L) WITH QUALIFIER (IF ANY)		PRODUCTION WELL LOCATION WITH NAME	---	CREEK
(NM) = NOT MEASURED			---	POWER CANAL
(...U) = NOT DETECTED			---	IRRIGATION CANAL
(...J) = ESTIMATED				
0.005				
0.5				
1.0				
REMEDIAL GOAL = 0.005 mg/L (MCL)				
CLIENT	MONSANTO			
CONSULTANT				
YYYY-MM-DD	2014-12-05			
PREPARED	SES			
DESIGN	MK			
REVIEW	MK			
APPROVED	DB			
PROJECT	2014 ANNUAL REPORT			
	SODA SPRINGS, IDAHO			
NOTES				
1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.				
2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).				
Golder Associates				
REv.	A			
FIGURE	9			



**LEGEND**

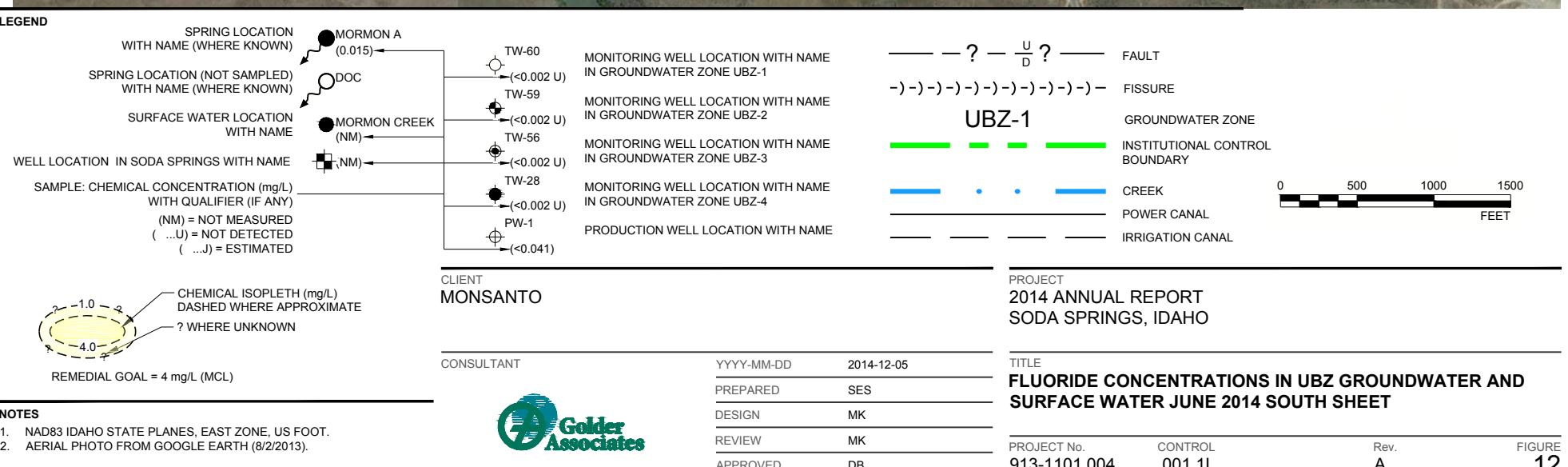
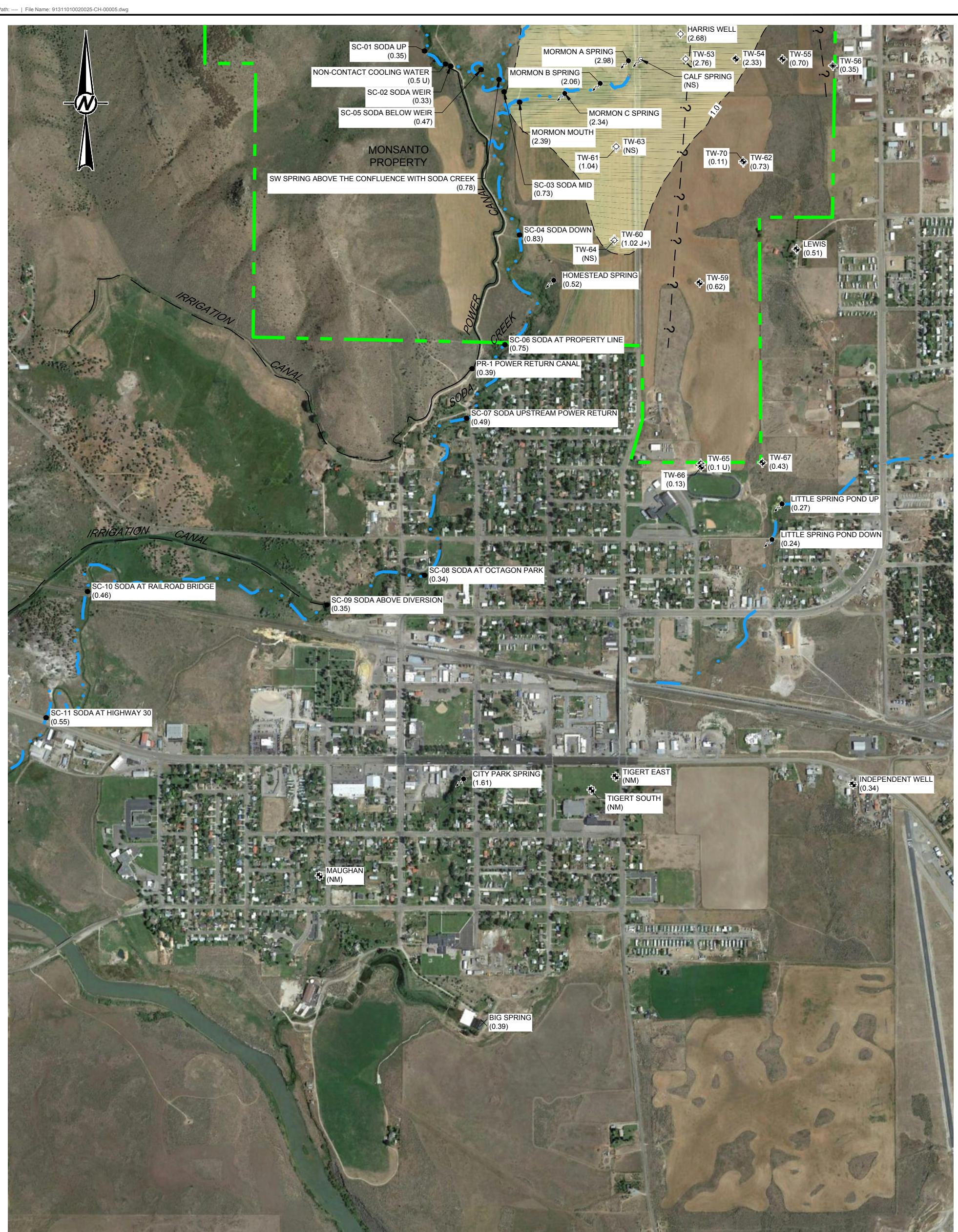
SPRING LOCATION WITH NAME (WHERE KNOWN)		MORMON A (0.015)	?	U ?	FAULT
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)		TW-60 (<0.002 U)	-	-	FISSURE
SURFACE WATER LOCATION WITH NAME		TW-59 (<0.002 U)	-	-	GROUNDWATER ZONE
WELL LOCATION IN SODA SPRINGS WITH NAME		TW-56 (<0.002 U)	-	-	INSTITUTIONAL CONTROL BOUNDARY
SAMPLE: CHEMICAL CONCENTRATION (mg/L) WITH QUALIFIER (IF ANY)		TW-28 (<0.002 U)	-	-	CREEK
(NM) = NOT MEASURED		PW-1 (<0.041)	-	-	POWER CANAL
(...U) = NOT DETECTED			-	-	IRRIGATION CANAL
(...J) = ESTIMATED			-	-	
REMEDIAL GOAL = 4 mg/L (MCL)					

CLIENT
MONSANTO
CONSULTANT

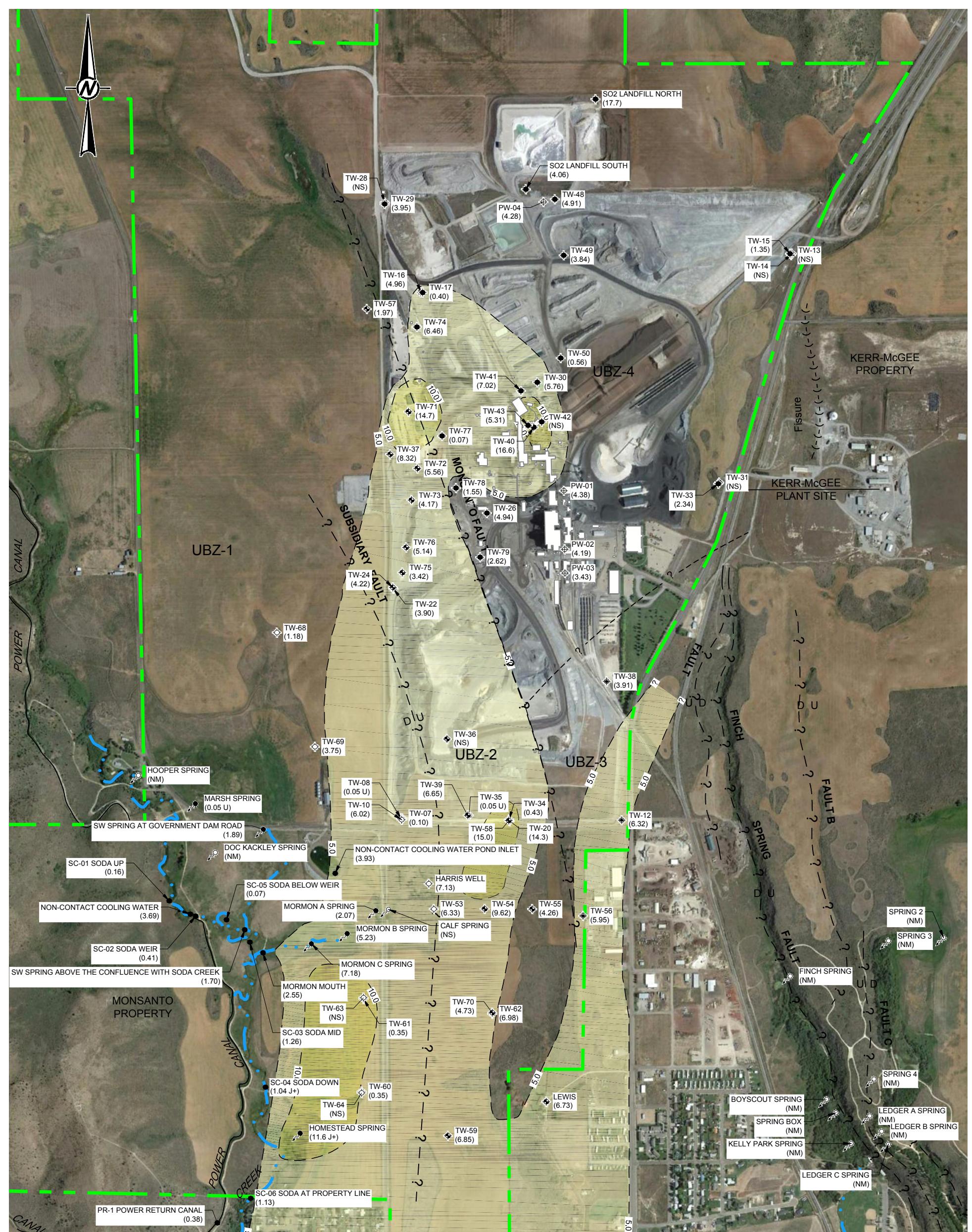
PROJECT
2014 ANNUAL REPORT
SODA SPRINGS, IDAHO

TITLE
FLUORIDE CONCENTRATIONS IN UBZ GROUNDWATER AND
SURFACE WATER JUNE 2014 NORTH SHEET

PROJECT No. 913-1101.004 CONTROL .001.11 Rev. A FIGURE 11



11 IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B



LEGEND

SPRING LOCATION WITH NAME (WHERE KNOWN)	MORMON A (0.015)	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-1	— ? — U ? — FAULT
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC	TW-60 (<0.002 U)	- - - - - FISSURE
SURFACE WATER LOCATION WITH NAME	MORMON CREEK (NM)	TW-59 (<0.002 U)	— GROUNDWATER ZONE
WELL LOCATION IN SODA SPRINGS WITH NAME	(NM)	TW-56 (<0.002 U)	— INSTITUTIONAL CONTROL BOUNDARY
SAMPLE: CHEMICAL CONCENTRATION (mg/L) WITH QUALIFIER (IF ANY)	TW-28 (<0.002 U)	TW-28 (NS)	— CREEK
(NM) = NOT MEASURED	PW-1 (<0.041)	PW-04 (4.28)	— POWER CANAL
(...U) = NOT DETECTED			— IRRIGATION CANAL
(...J) = ESTIMATED			
— ? —	— ? —	— ? —	0 500 1000 1500 FEET
— 5.0 —	— 5.0 —	— 5.0 —	
— 10.0 —	— 10.0 —	— 10.0 —	
REMEDIAL GOAL = 10 mg/L-N			

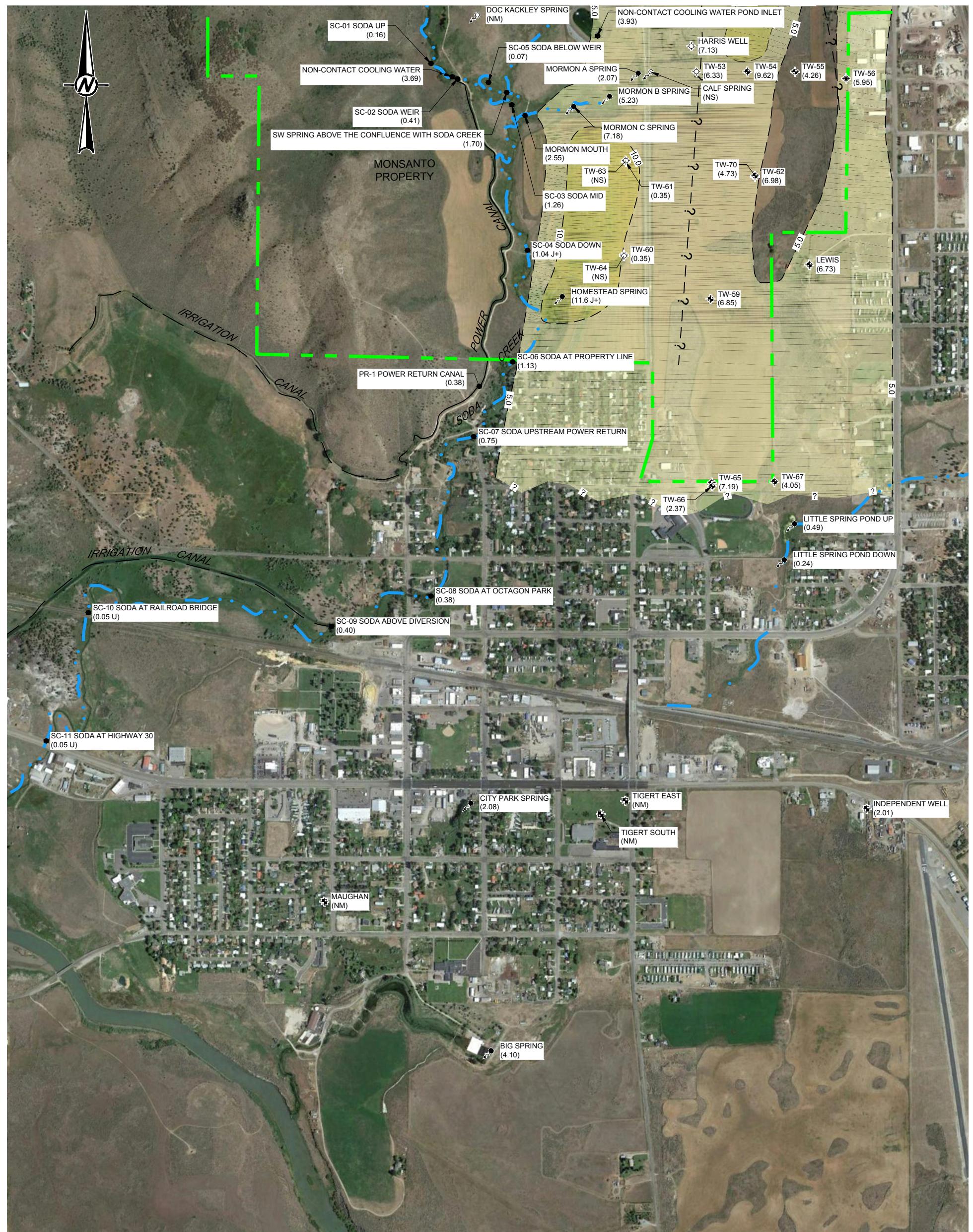
Golder Associates

NOTES
1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).

PROJECT
2014 ANNUAL REPORT
SODA SPRINGS, IDAHO

TITLE
NITRATE CONCENTRATIONS IN UBZ GROUNDWATER AND
SURFACE WATER JUNE 2014 NORTH SHEET

PROJECT No. 913-1101.004 CONTROL .001.1I Rev. A FIGURE 15

**LEGEND**

SPRING LOCATION WITH NAME (WHERE KNOWN)	MORMON A (0.015) ←	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-1	— ? — $\frac{U}{D}$? — FAULT
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC ←	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-2	- - - - - FISSURE
SURFACE WATER LOCATION WITH NAME	MORMON CREEK (NM) ←	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-3	— GROUNDWATER ZONE
WELL LOCATION IN SODA SPRINGS WITH NAME	(NM) ←	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-4	— INSTITUTIONAL CONTROL BOUNDARY
SAMPLE: CHEMICAL CONCENTRATION (mg/L) WITH QUALIFIER (IF ANY)	TW-60 (<0.002 U) ←	PRODUCTION WELL LOCATION WITH NAME	— CREEK
(NM) = NOT MEASURED	TW-59 (<0.002 U) ←		— POWER CANAL
(...U) = NOT DETECTED	TW-56 (<0.002 U) ←		— IRRIGATION CANAL
(...J) = ESTIMATED	TW-28 (<0.002 U) ←		
	PW-1 (<0.04) ←		
			0 500 1000 1500 FEET

CLIENT

MONSANTO

PROJECT
2014 ANNUAL REPORT
SODA SPRINGS, IDAHO

CONSULTANT



YYYY-MM-DD 2014-12-05

PREPARED SES

DESIGN MK

REVIEW MK

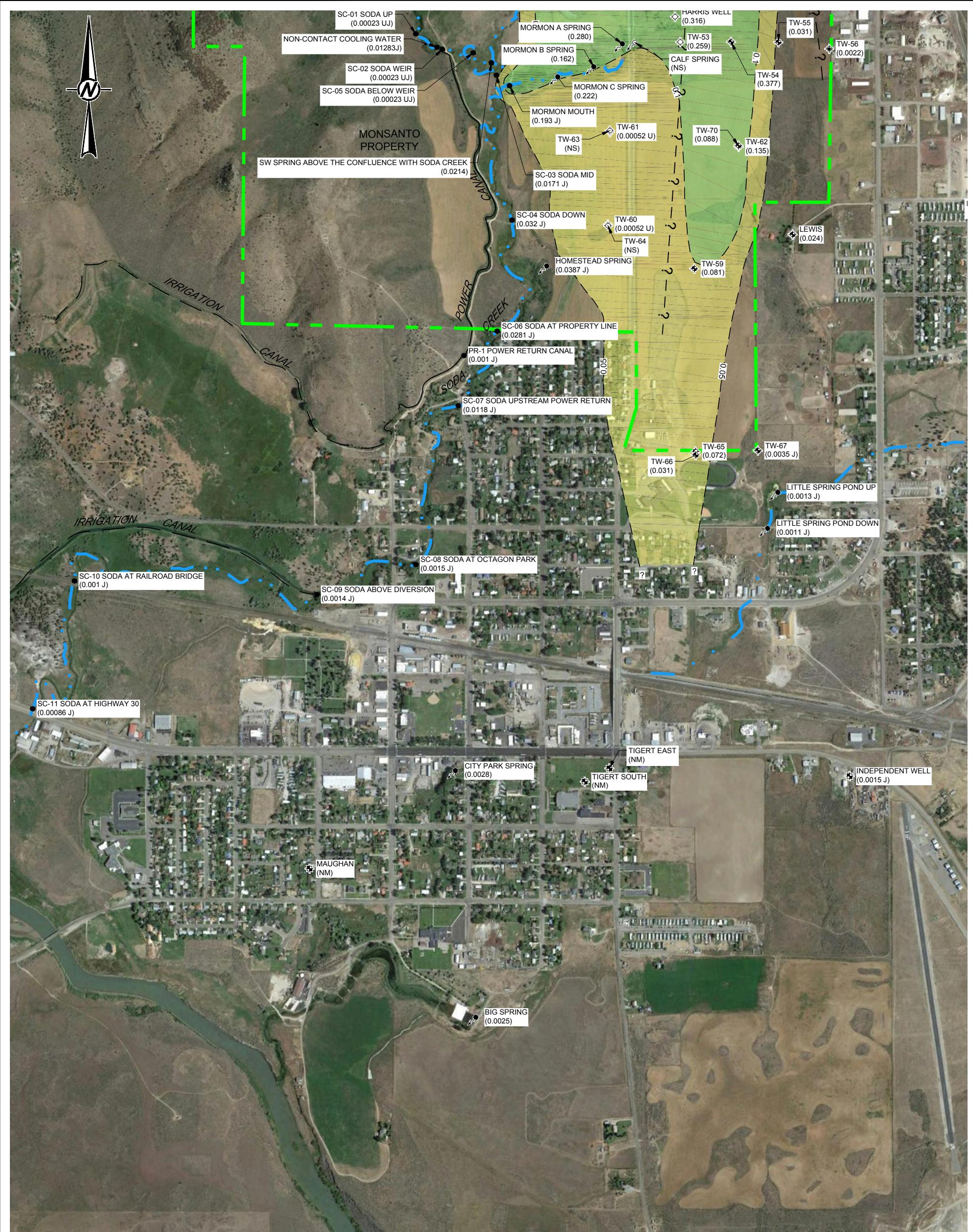
APPROVED DB

TITLE
NITRATE CONCENTRATIONS IN UBZ GROUNDWATER AND
SURFACE WATER JUNE 2014 SOUTH SHEET

PROJECT No. 913-1101.004 CONTROL .001.1I Rev. A FIGURE 16

NOTES

1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).

**LEGEND**

SPRING LOCATION WITH NAME (WHERE KNOWN)	MORMON A (0.015) ←	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-1	— ? — U ? — FAULT
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC ←	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-2	- - - - - FISSURE
SURFACE WATER LOCATION WITH NAME	MORMON CREEK (NM) ←	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-3	GROUNDWATER ZONE
WELL LOCATION IN SODA SPRINGS WITH NAME	(NM) ←	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-4	INSTITUTIONAL CONTROL BOUNDARY
SAMPLE: CHEMICAL CONCENTRATION (mg/L) WITH QUALIFIER (IF ANY)		PRODUCTION WELL LOCATION WITH NAME	CREEK
(NM) = NOT MEASURED			POWER CANAL
(...U) = NOT DETECTED			IRRIGATION CANAL
(...J) = ESTIMATED			
— ? — U ? —			
— - - - -			
0 500 1000 1500 FEET			

NOTES

1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).



CONSULTANT

YYYY-MM-DD 2014-12-05

PREPARED SES

DESIGN MK

REVIEW MK

APPROVED DB

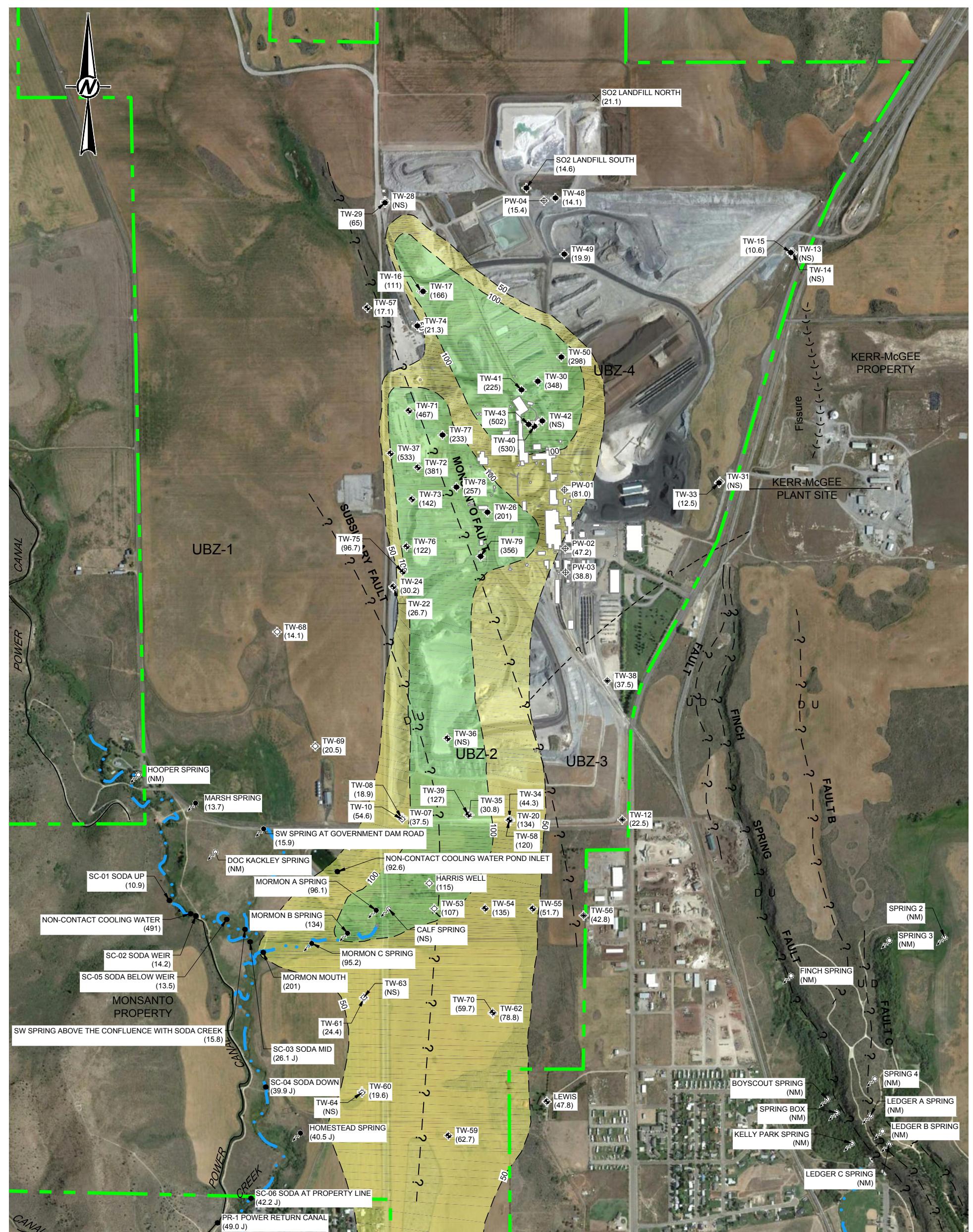
PROJECT
2014 ANNUAL REPORT
SODA SPRINGS, IDAHO

TITLE
SELENIUM CONCENTRATIONS IN UBZ GROUNDWATER AND SURFACE WATER JUNE 2014 SOUTH SHEET

PROJECT No. 913-1101.004

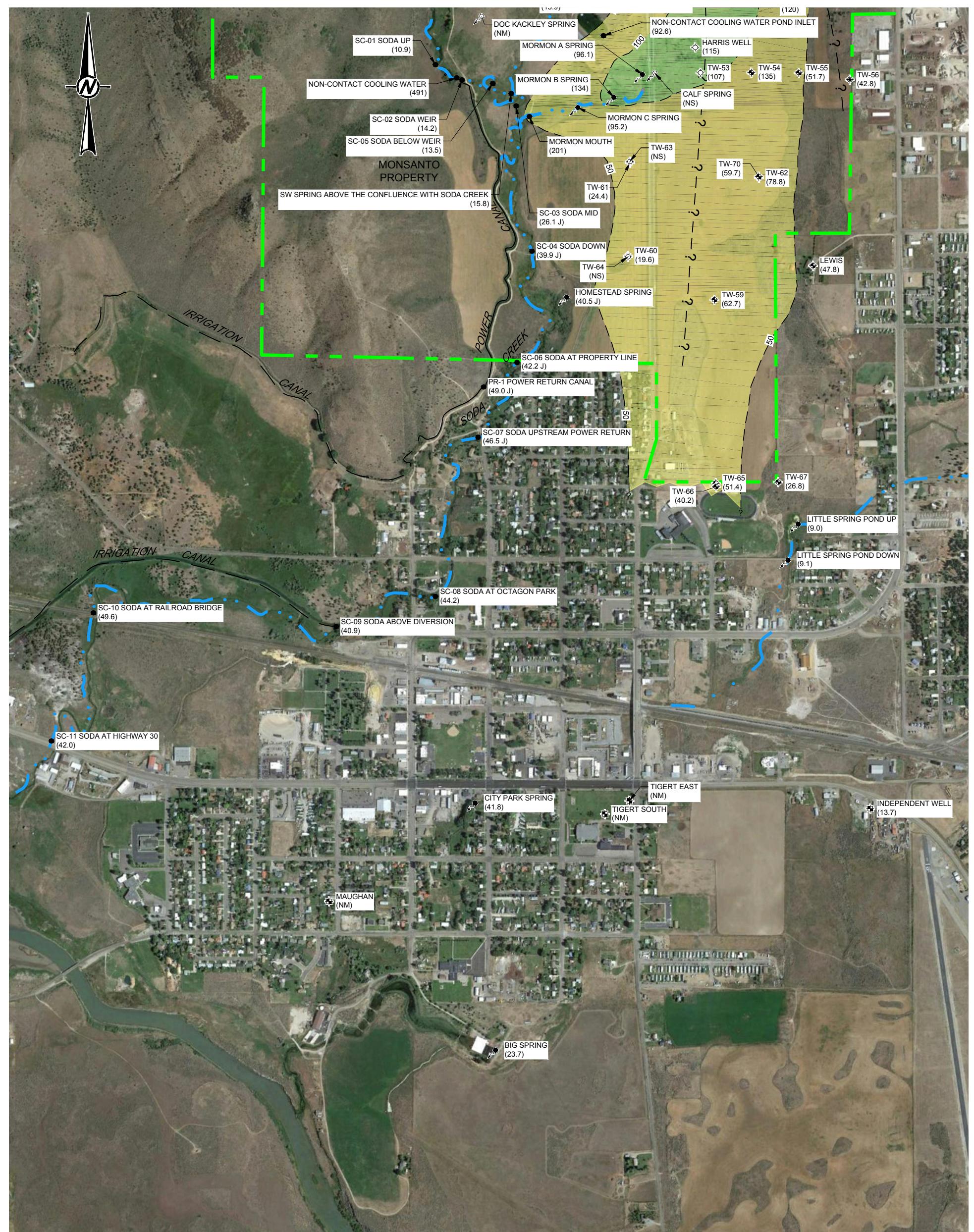
CONTROL .001.1I

Rev. A



LEGEND

SPRING LOCATION WITH NAME (WHERE KNOWN)	MORMON A (0.015) ←
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC ←
SURFACE WATER LOCATION WITH NAME	MORMON CREEK (NM) ←
WELL LOCATION IN SODA SPRINGS WITH NAME	(NM) ←
SAMPLE: CHEMICAL CONCENTRATION (mg/L) WITH QUALIFIER (IF ANY)	
(NM) = NOT MEASURED	
(...U) = NOT DETECTED	
(...J) = ESTIMATED	
CHEMICAL ISOPLETH (mg/L) DASHED WHERE APPROXIMATE	50 ←
? WHERE UNKNOWN	100 ←
CLIENT	MONSANTO
CONSULTANT	Golder Associates
PROJECT	2014 ANNUAL REPORT SODA SPRINGS, IDAHO
TITLE	CHLORIDE CONCENTRATIONS IN UBZ GROUNDWATER AND SURFACE WATER JUNE 2014 NORTH SHEET
NOTES	1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT. 2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).
PREPARED	SES
DESIGN	MK
REVIEW	MK
APPROVED	DB
PROJECT No.	913-1101.004
CONTROL	.001.1I
Rev.	A
FIGURE	19

**LEGEND**

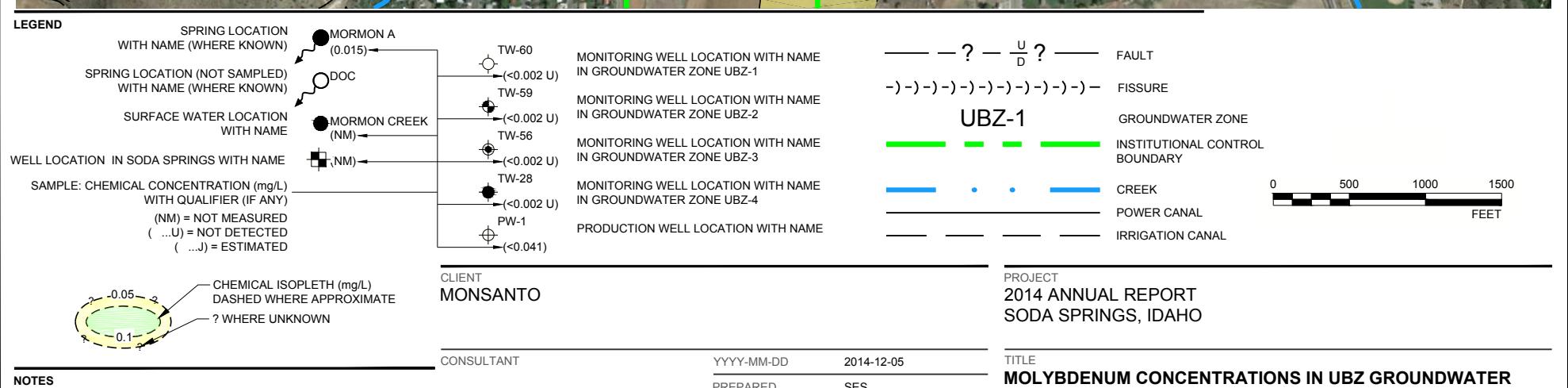
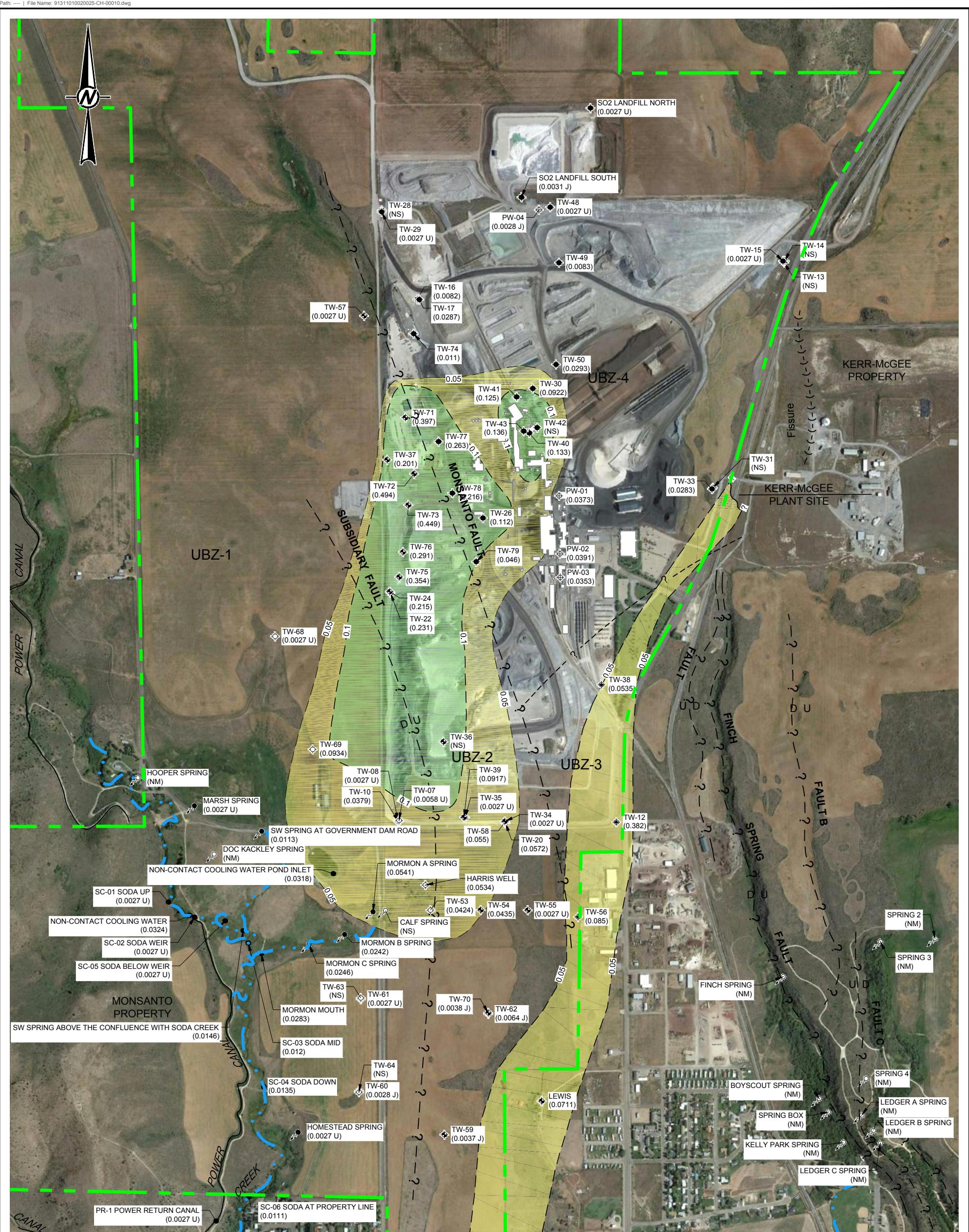
SPRING LOCATION WITH NAME (WHERE KNOWN)	MORMON A (0.015) ←
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC ←
SURFACE WATER LOCATION WITH NAME	MORMON CREEK (NM) ←
WELL LOCATION IN SODA SPRINGS WITH NAME	(NM) ←
SAMPLE: CHEMICAL CONCENTRATION (mg/L) WITH QUALIFIER (IF ANY)	
(NM) = NOT MEASURED	
(...U) = NOT DETECTED	
(...J) = ESTIMATED	
CHEMICAL ISOPLETH (mg/L) DASHED WHERE APPROXIMATE	
? WHERE UNKNOWN	

— ? — $\frac{U}{D}$? —	FAULT
- - - - -	FISSURE
— — — — —	GROUNDWATER ZONE
— — — — —	INSTITUTIONAL CONTROL BOUNDARY
— — — — —	CREEK
— — — — —	POWER CANAL
— — — — —	IRRIGATION CANAL

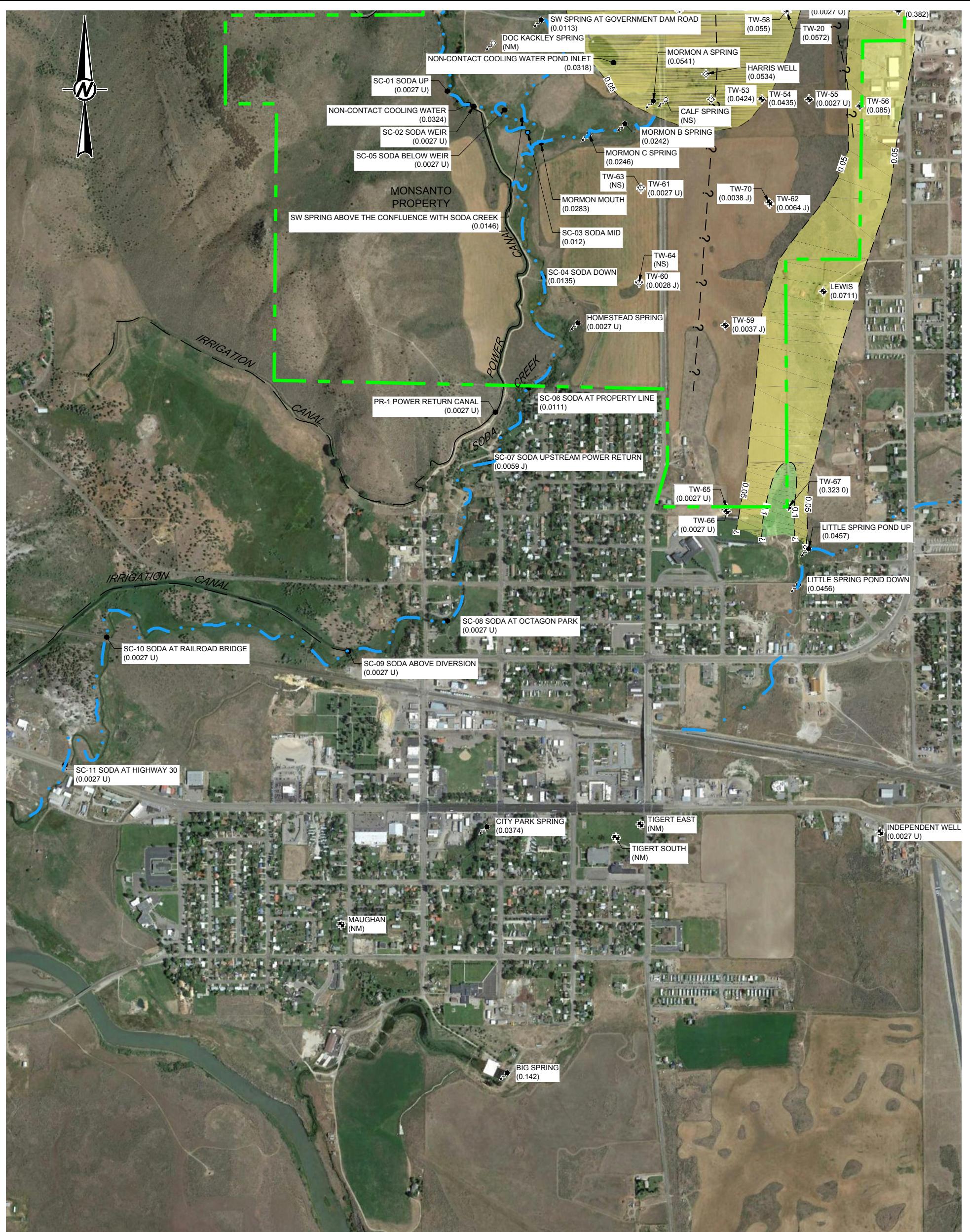
0 500 1000 1500 FEET

CLIENT	MONSANTO		PROJECT	2014 ANNUAL REPORT SODA SPRINGS, IDAHO	
CONSULTANT	YYYY-MM-DD	2014-12-05	TITLE	CHLORIDE CONCENTRATIONS IN UBZ GROUNDWATER AND SURFACE WATER JUNE 2014 SOUTH SHEET	
	PREPARED	SES			
	DESIGN	MK			
	REVIEW	MK			
	APPROVED	DB			
NOTES	PROJECT No.	913-1101.004	CONTROL	.001.1I	Rev. A
1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT. 2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).					FIGURE 20





1 in. This measurement does not include what is shown. The steel shall have been modified from ANSI B

**LEGEND**

SPRING LOCATION WITH NAME (WHERE KNOWN)	MORMON A (0.015) ←	FAULT
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC ←	FISSURE
SURFACE WATER LOCATION WITH NAME	MORMON CREEK (NM) ←	GROUNDWATER ZONE
WELL LOCATION IN SODA SPRINGS WITH NAME	(NM) ←	INSTITUTIONAL CONTROL BOUNDARY
SAMPLE: CHEMICAL CONCENTRATION (mg/L) WITH QUALIFIER (IF ANY)		CREEK
(NM) = NOT MEASURED		POWER CANAL
(...U) = NOT DETECTED		IRRIGATION CANAL
(...J) = ESTIMATED		
CLIENT	MONSANTO	
CONSULTANT		
PROJECT	2014 ANNUAL REPORT	
	SODA SPRINGS, IDAHO	
TITLE	MOLYBDENUM CONCENTRATIONS IN UBZ GROUNDWATER AND SURFACE WATER JUNE 2014 SOUTH SHEET	
NOTES		
1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.		
2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).		

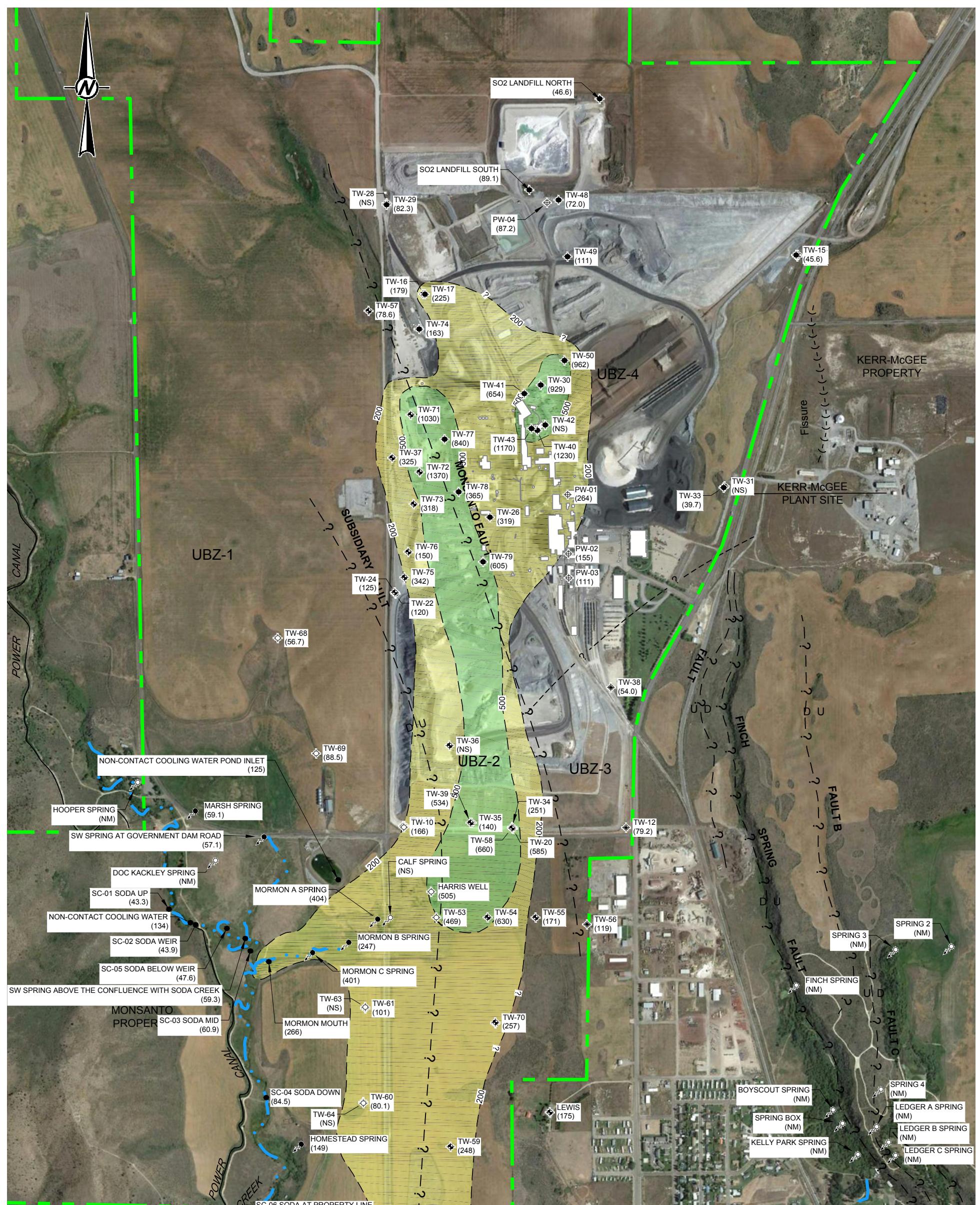
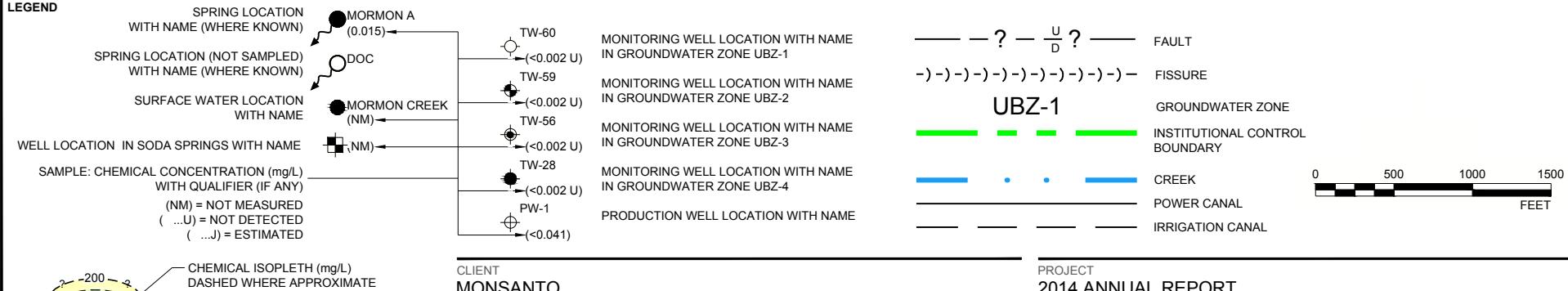
1 in If this measurement does not match what is shown, the sheet size has been modified from ANSI B

0 500 1000 1500 FEET

Prepared SES
Design MK
Review MK
Approved DB

Project No. 913-1101.004 Control .001.1I Rev. A

Figure 22

**LEGEND**

NOTES

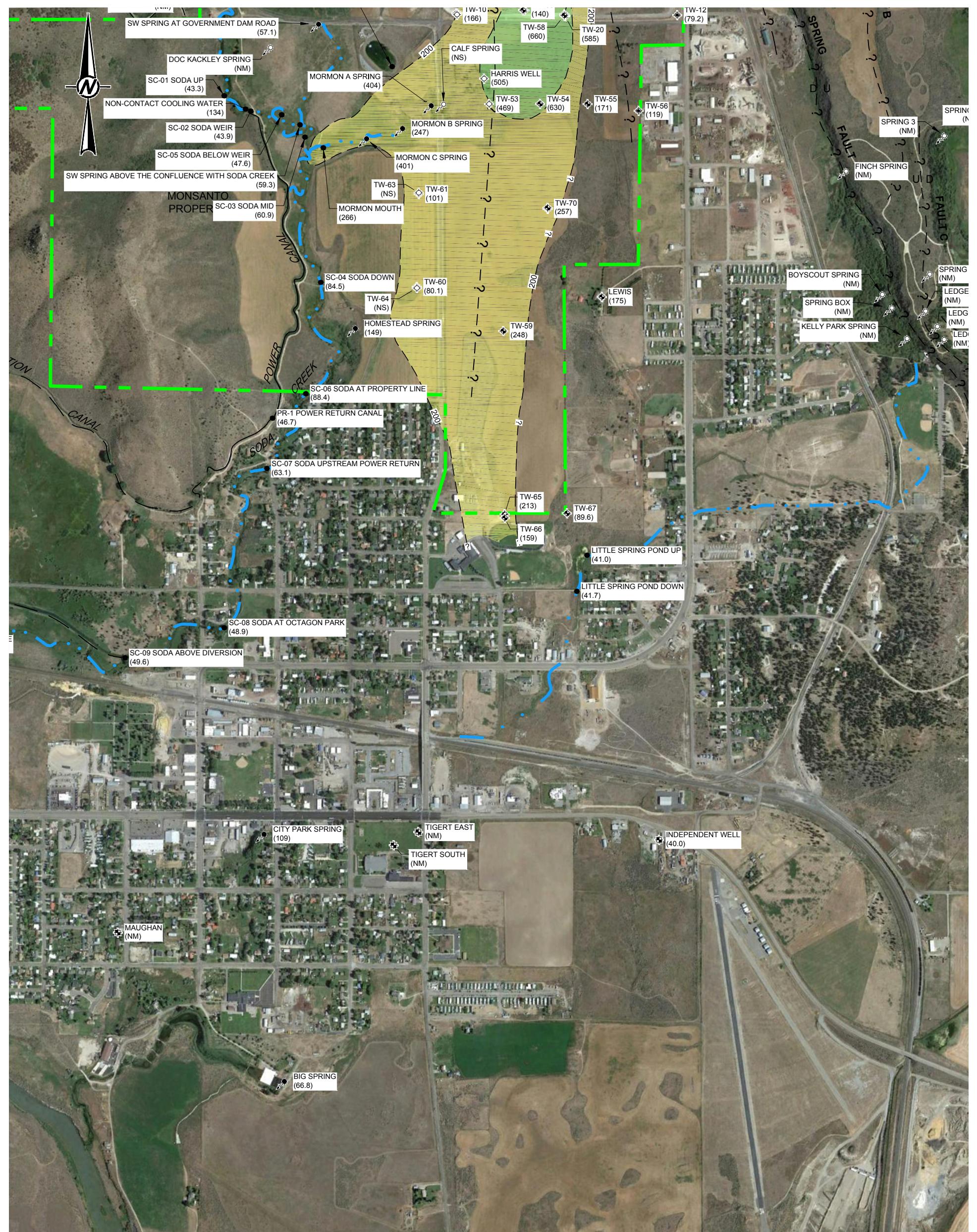
- NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
- AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).



FIGURE 23

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

PROJECT No. 913-1101.004 CONTROL .001.1I Rev. A

**LEGEND**

SPRING LOCATION WITH NAME (WHERE KNOWN)	MORMON A (0.015)	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-1	— ? — U ? — FAULT
SPRING LOCATION (NOT SAMPLED) WITH NAME (WHERE KNOWN)	DOC	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-2	- - - - - FISSURE
SURFACE WATER LOCATION WITH NAME	MORMON CREEK (NM)	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-3	— GROUNDWATER ZONE
WELL LOCATION IN SODA SPRINGS WITH NAME	(NM)	MONITORING WELL LOCATION WITH NAME IN GROUNDWATER ZONE UBZ-4	— INSTITUTIONAL CONTROL BOUNDARY
SAMPLE: CHEMICAL CONCENTRATION (mg/L) WITH QUALIFIER (IF ANY)	TW-60 (<0.002 U)	PRODUCTION WELL LOCATION WITH NAME	— CREEK
(NM) = NOT MEASURED	TW-59 (<0.002 U)		— POWER CANAL
(...U) = NOT DETECTED	TW-56 (<0.002 U)		— IRRIGATION CANAL
(...J) = ESTIMATED	TW-28 (<0.002 U)		
CHEMICAL ISOPLETH (mg/L) DASHED WHERE APPROXIMATE	PW-1 (<0.041)		
? WHERE UNKNOWN			

Golder Associates

CLIENT

CONSULTANT

YYYY-MM-DD 2014-12-05

PREPARED SES

DESIGN MK

REVIEW MK

APPROVED DB

PROJECT
2014 ANNUAL REPORT
SODA SPRINGS, IDAHO

TITLE
SULFATE CONCENTRATIONS IN UBZ GROUNDWATER AND SURFACE WATER JUNE 2014 SOUTH SHEET

PROJECT No. 913-1101.004

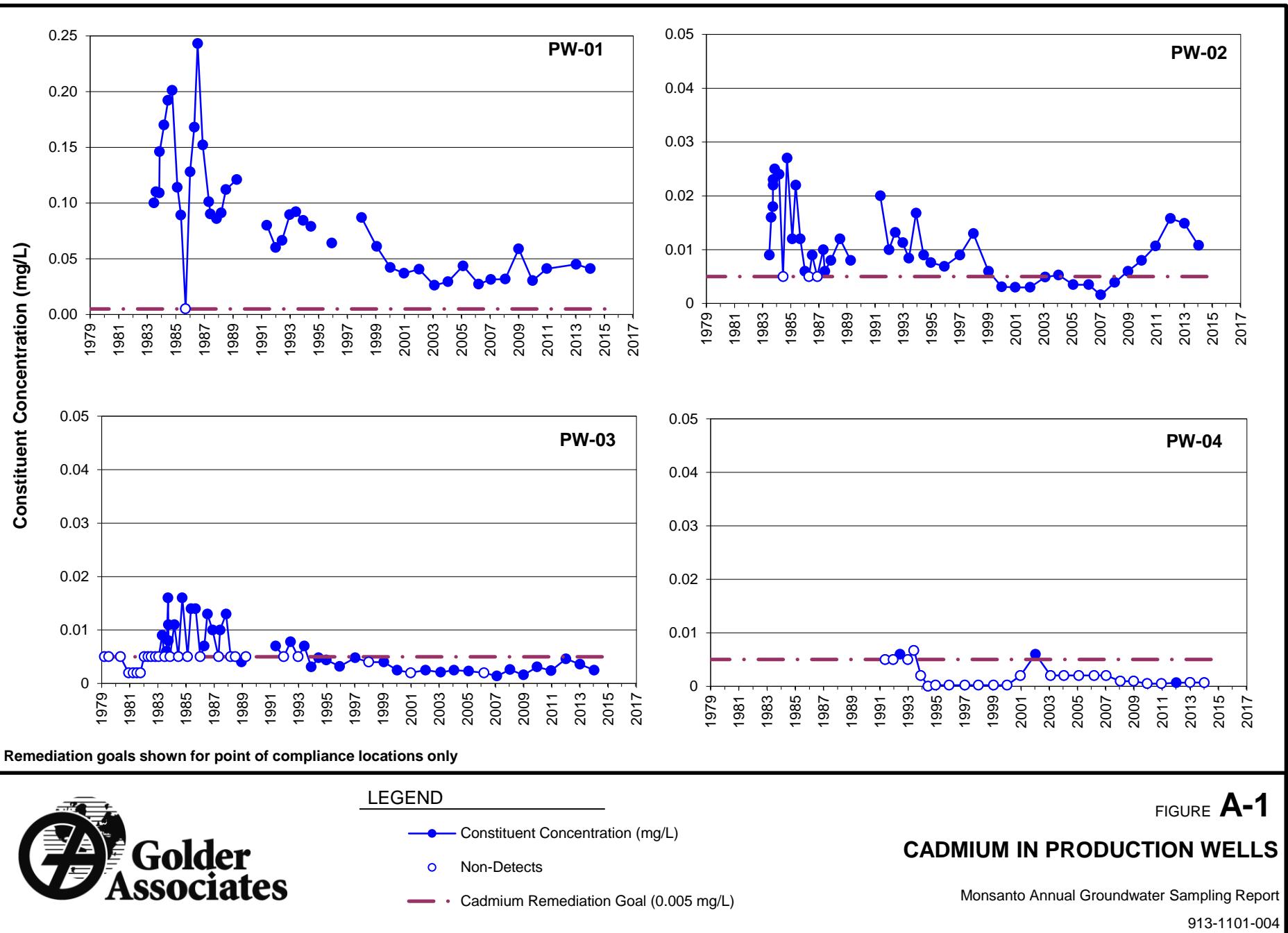
CONTROL .001.1I

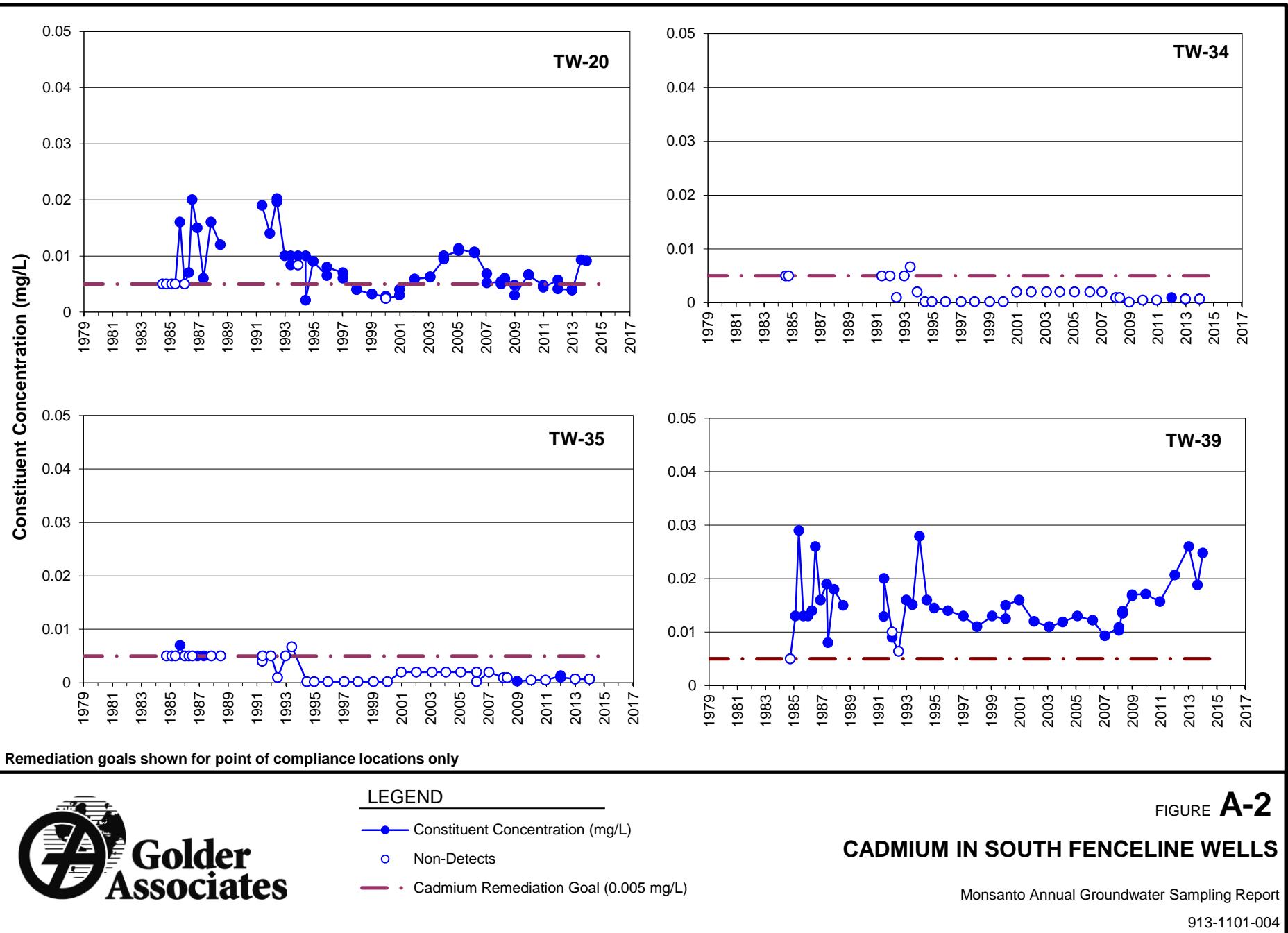
Rev. A

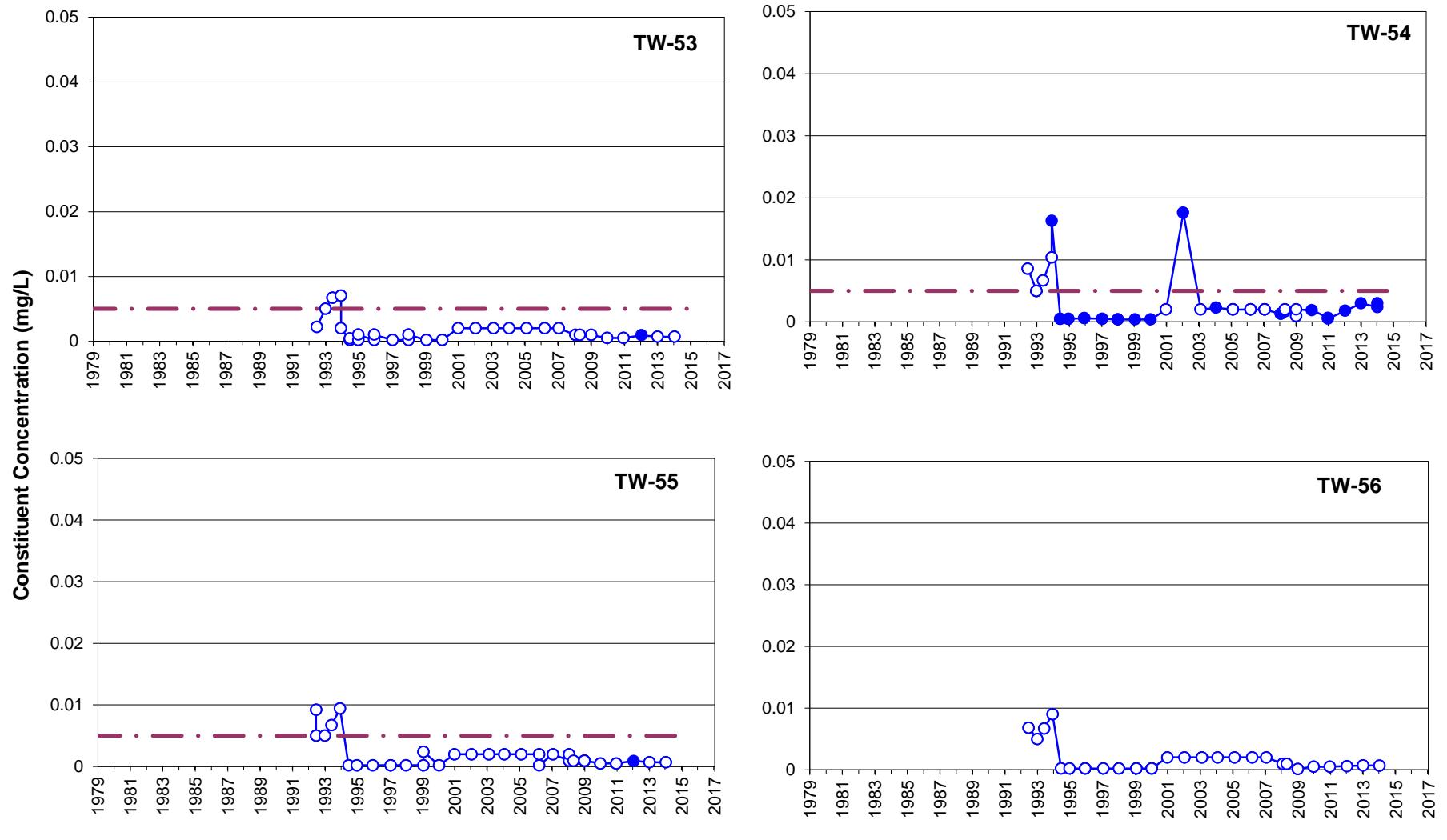
1 in If this measurement does not match what is shown, the sheet size has been modified from ANSI B

- NOTES
 1. NAD83 IDAHO STATE PLANES, EAST ZONE, US FOOT.
 2. AERIAL PHOTO FROM GOOGLE EARTH (8/2/2013).

APPENDIX A
TIME-HISTORY GRAPHS FOR CADMIUM







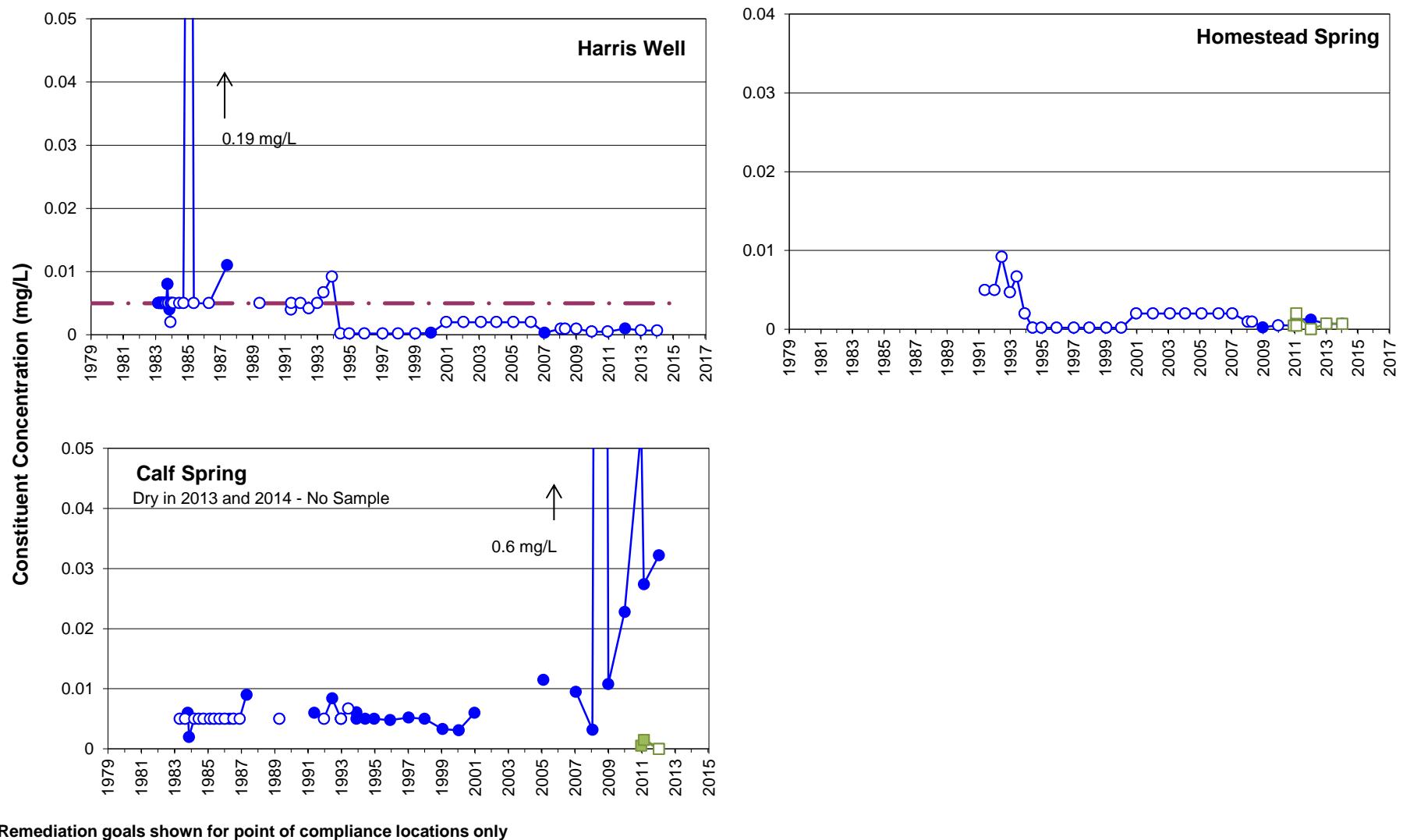
- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Cadmium Remediation Goal (0.005 mg/L)

FIGURE A-3

CADMUM IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004

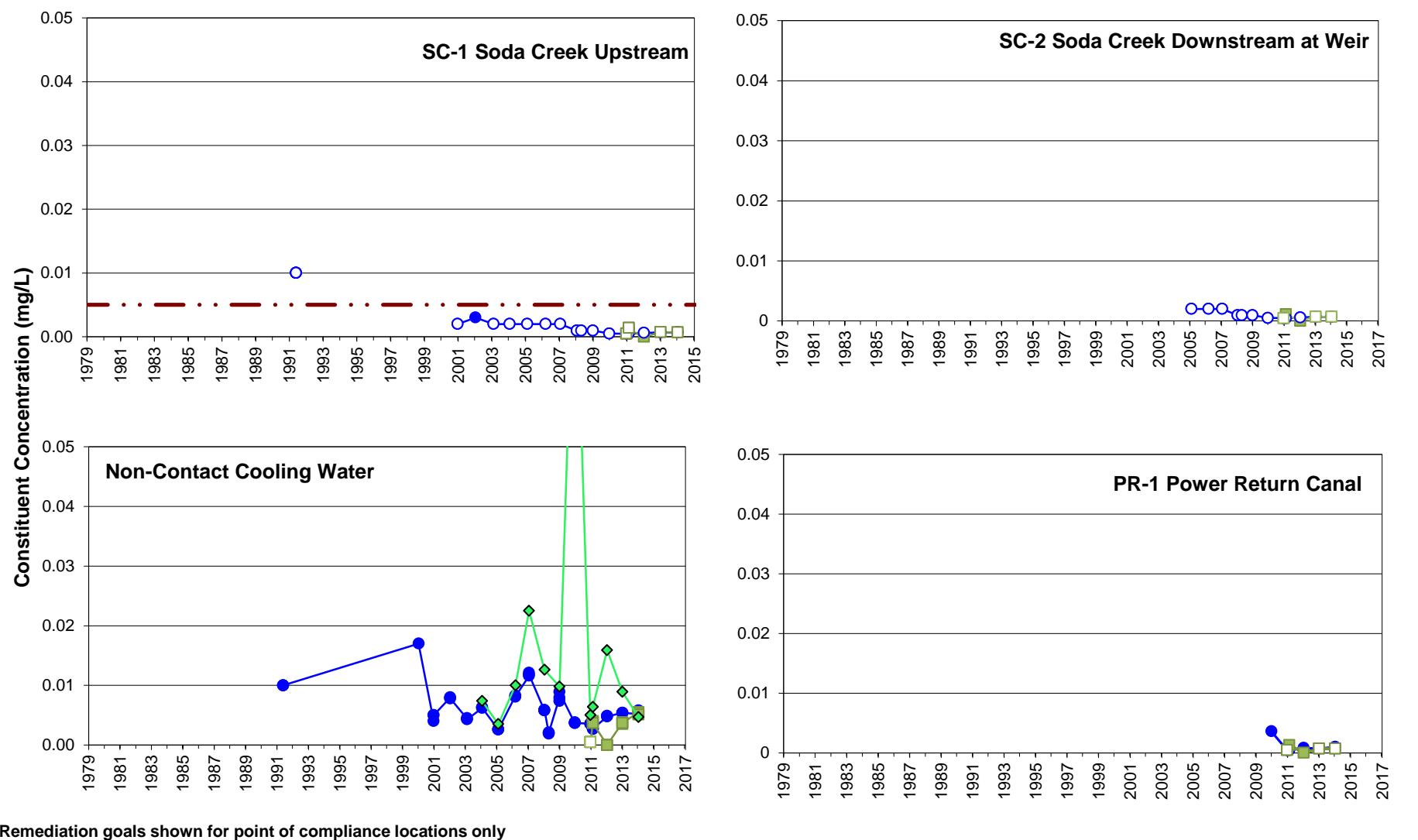


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Dissolved Constituent Concentration (mg/L)
 - Dissolved Non-Detect (mg/L)
 - Cadmium Remediation Goal (0.005 mg/L)

FIGURE A-4
**CADMUM IN HARRIS WELL AND SPRINGS
SOUTH OF PLANT**

Monsanto Annual Groundwater Sampling Report

913-1101-004

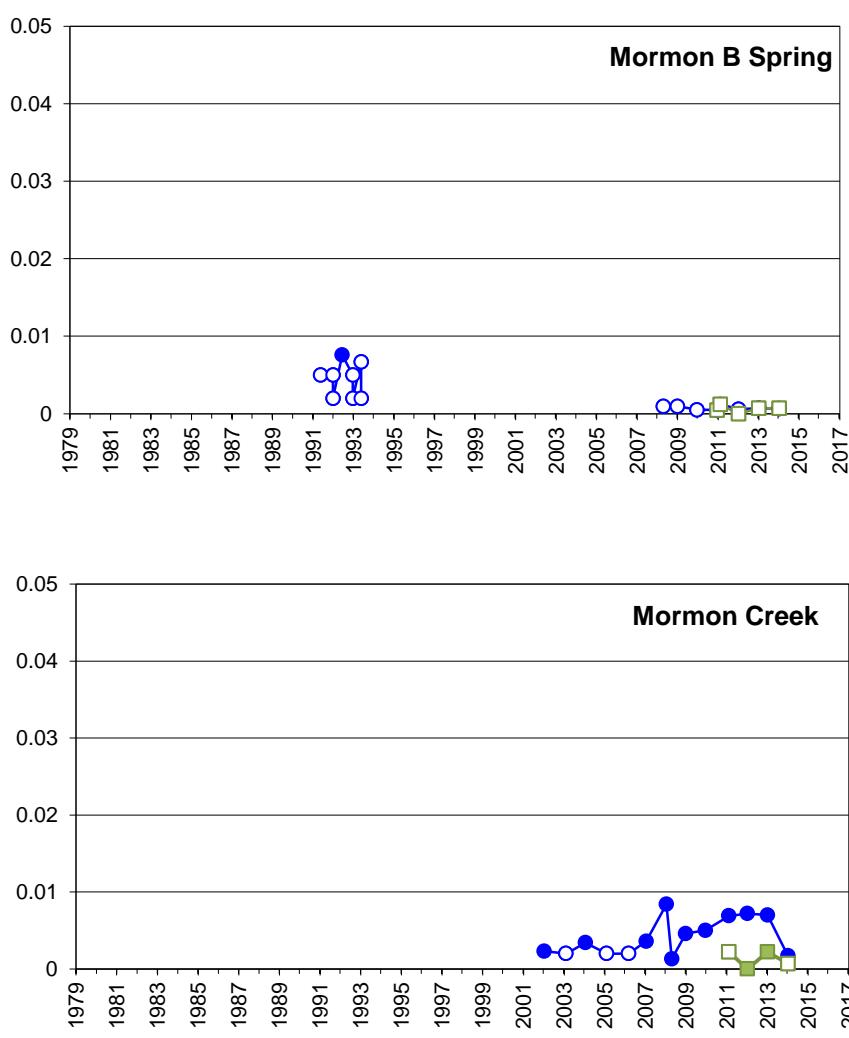
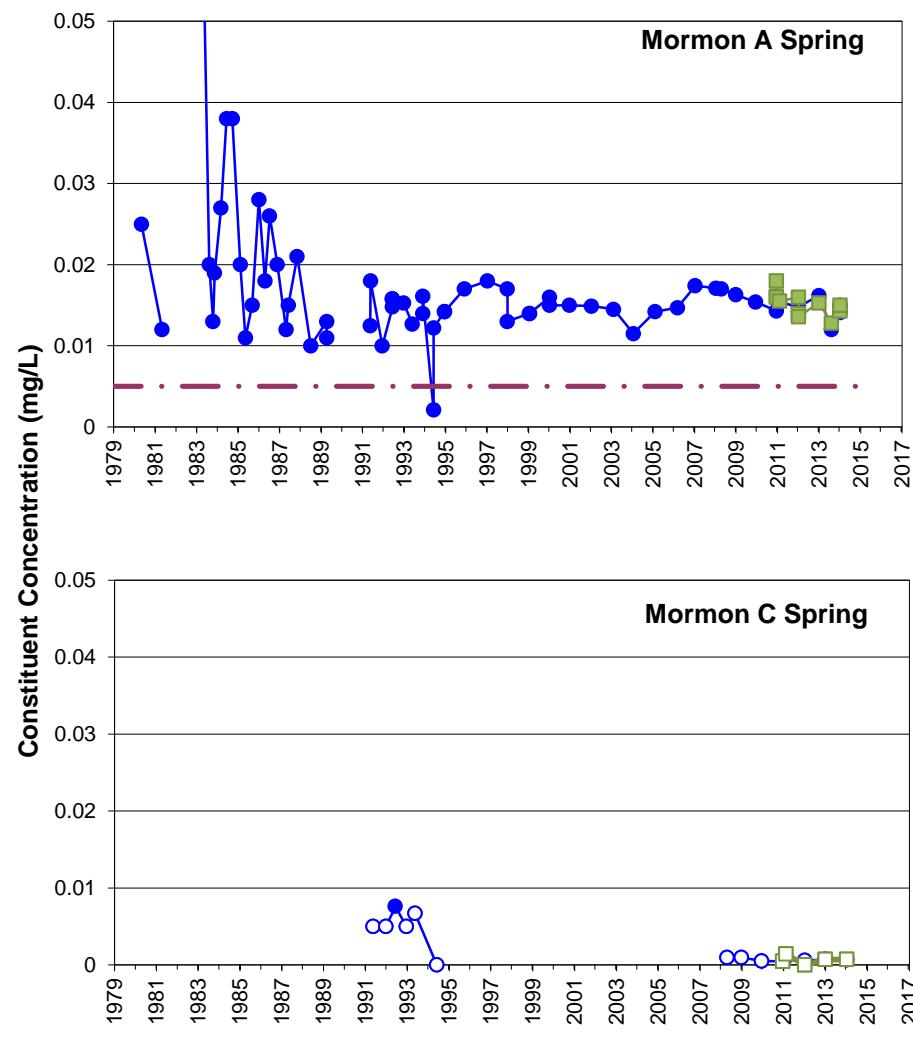


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Dissolved Constituent Concentration (mg/L)
 - Dissolved Non-Detect (mg/L)
 - Cadmium Remediation Goal (0.005 mg/L)
 - Pond Inlet

FIGURE A-5
CADMIUM IN SODA CREEK AND NON-CONTACT COOLING WATER DISCHARGE

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

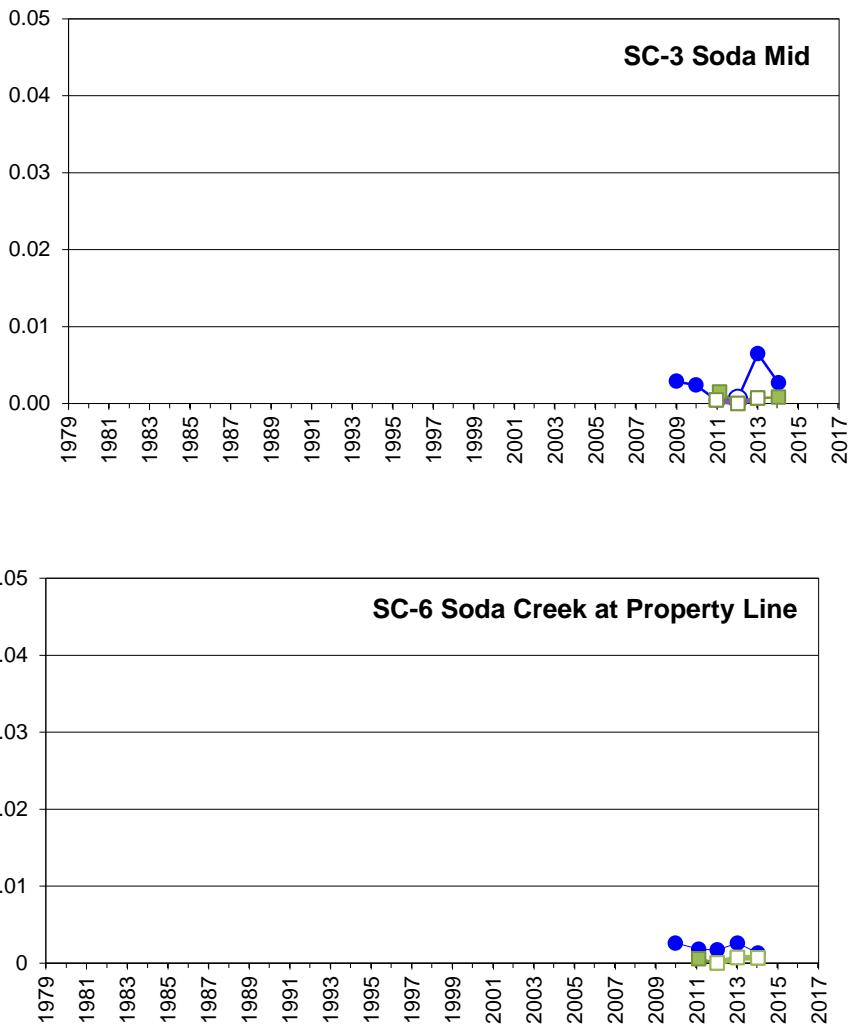
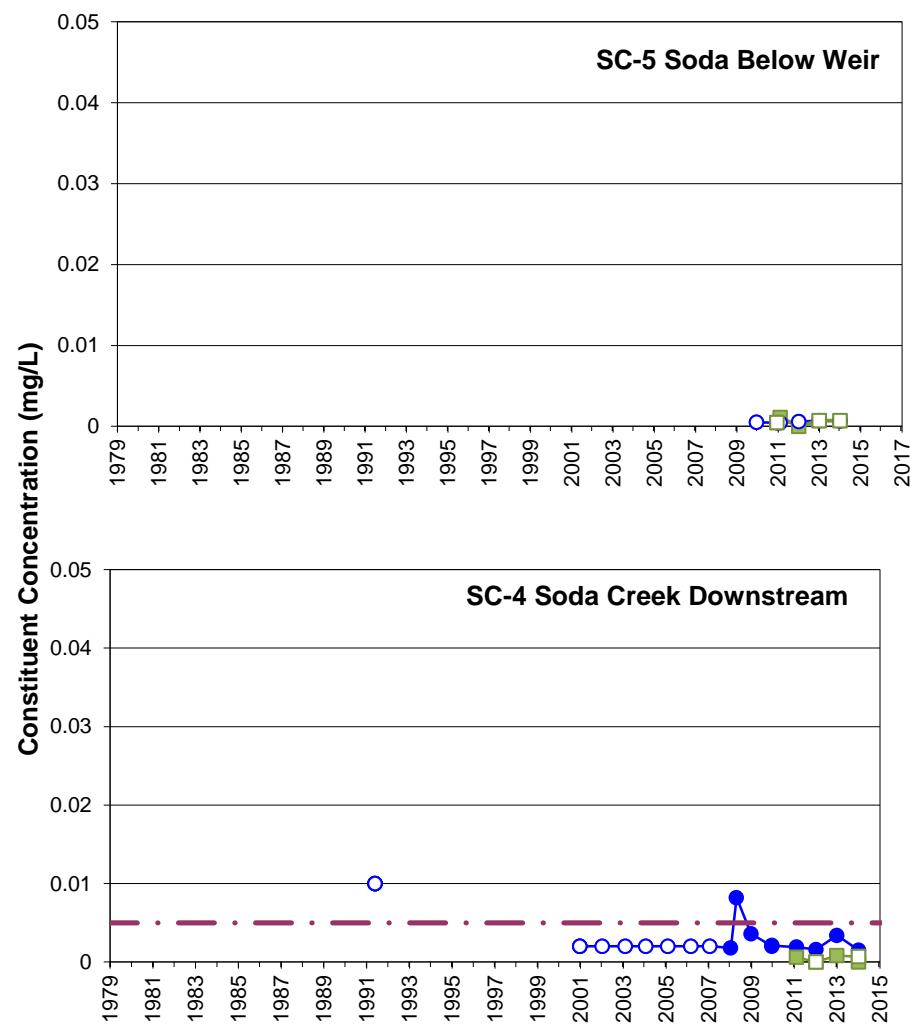


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Dissolved Constituent Concentration (mg/L)
 - Dissolved Non-Detect (mg/L)
 - Cadmium Remediation Goal (0.005 mg/L)

FIGURE A-6
**CADMUM IN MORMON A, B, AND C SPRINGS
AND MORMON CREEK**

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



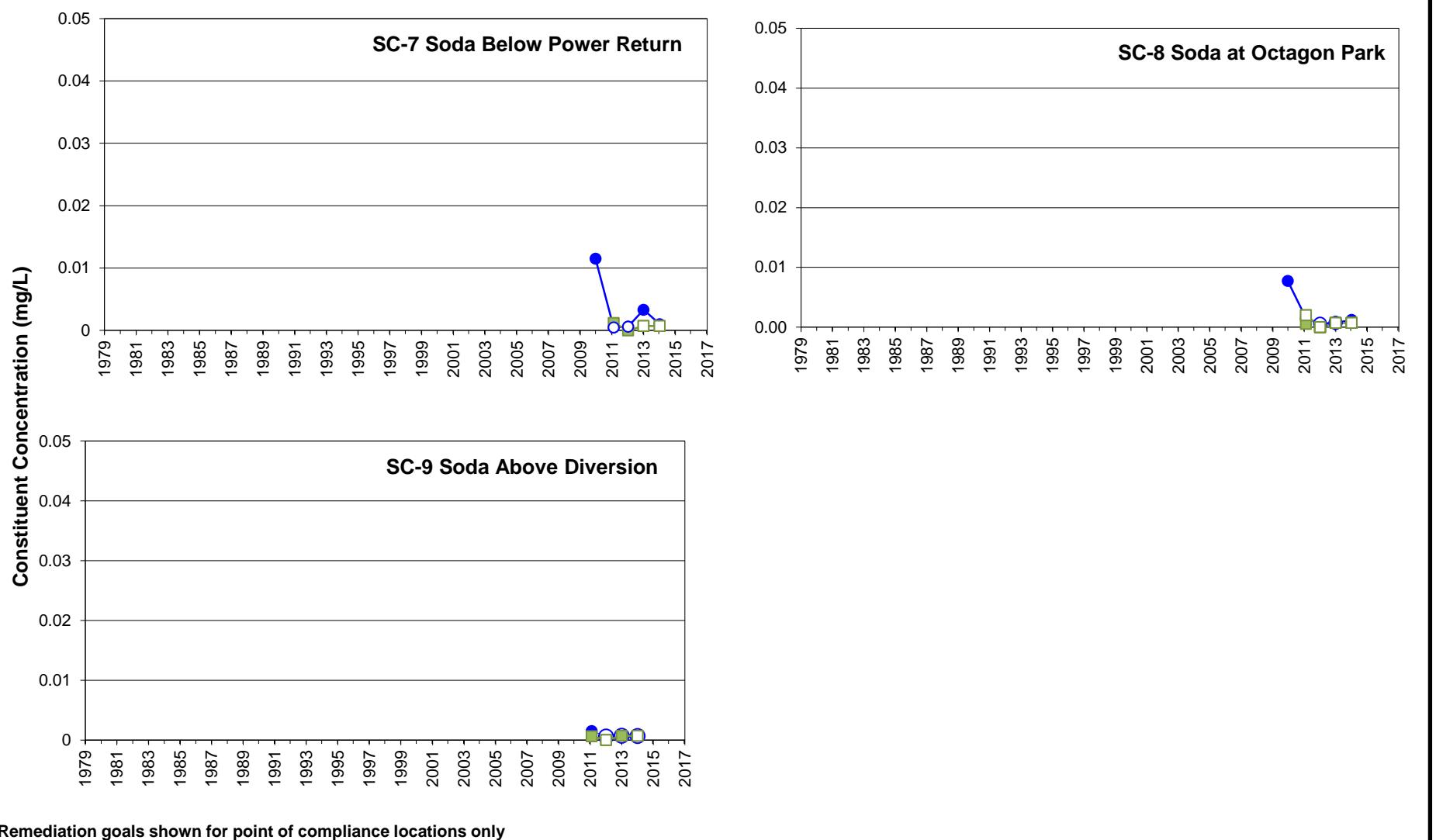
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)
- Cadmium Remediation Goal (0.005 mg/L)

FIGURE A-7
CADMUM IN SODA CREEK - WEIR TO PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004

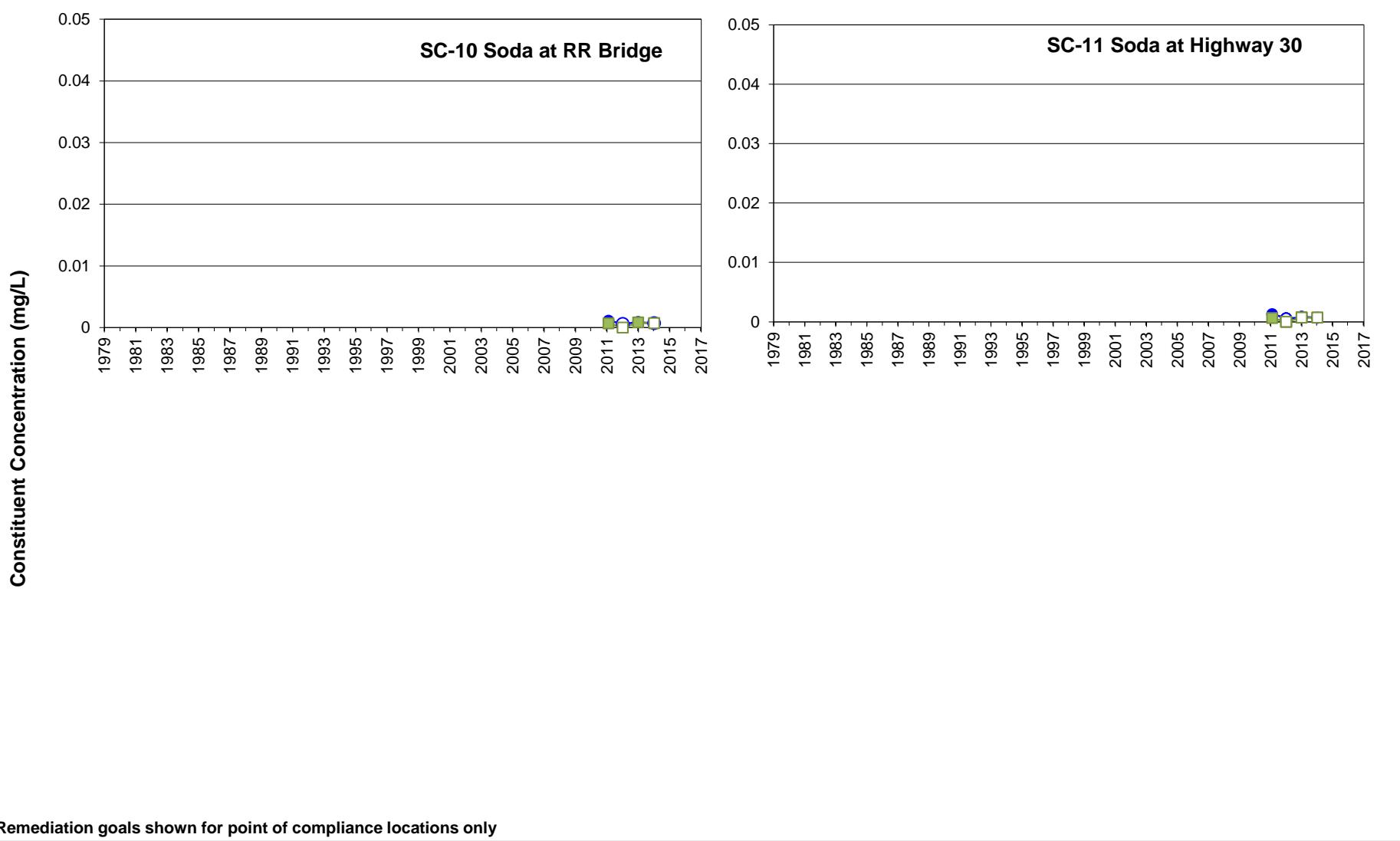


LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

FIGURE A-8
CADMIUM IN SODA CREEK - BELOW PROPERTY LINE

Monsanto Annual Groundwater Sampling Report
913-1101-004



Remediation goals shown for point of compliance locations only

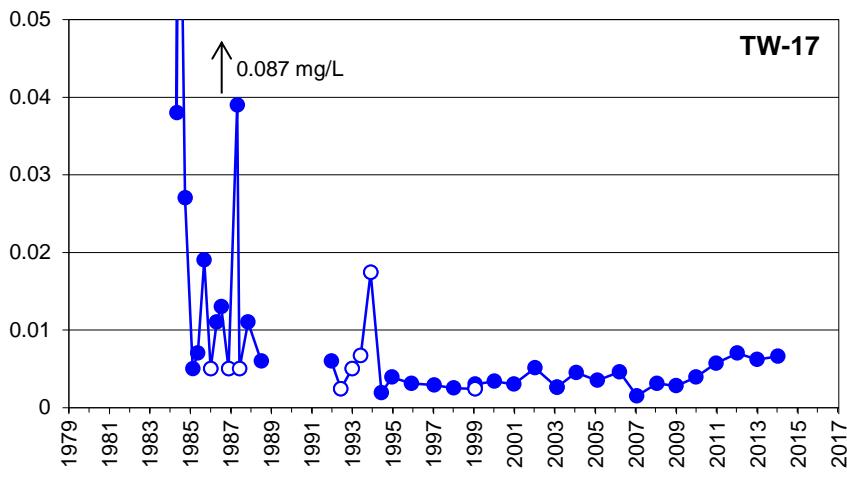
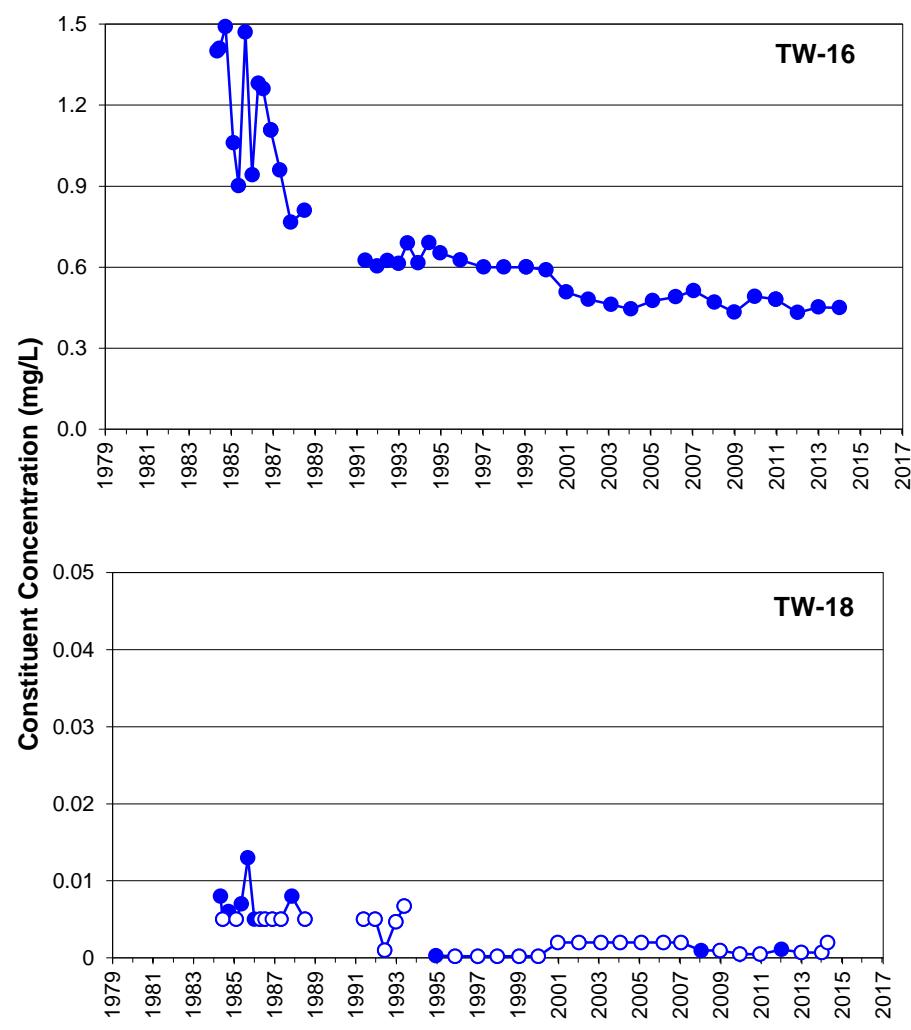


LEGEND

- Constituent Concentration (mg/L)
- Non-detect
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

FIGURE A-9 CADMIUM IN SODA CREEK - ABOVE ALEXANDER RESERVOIR

Monsanto Annual Groundwater Sampling Report
913-1101-004



Remediation goals shown for point of compliance locations only



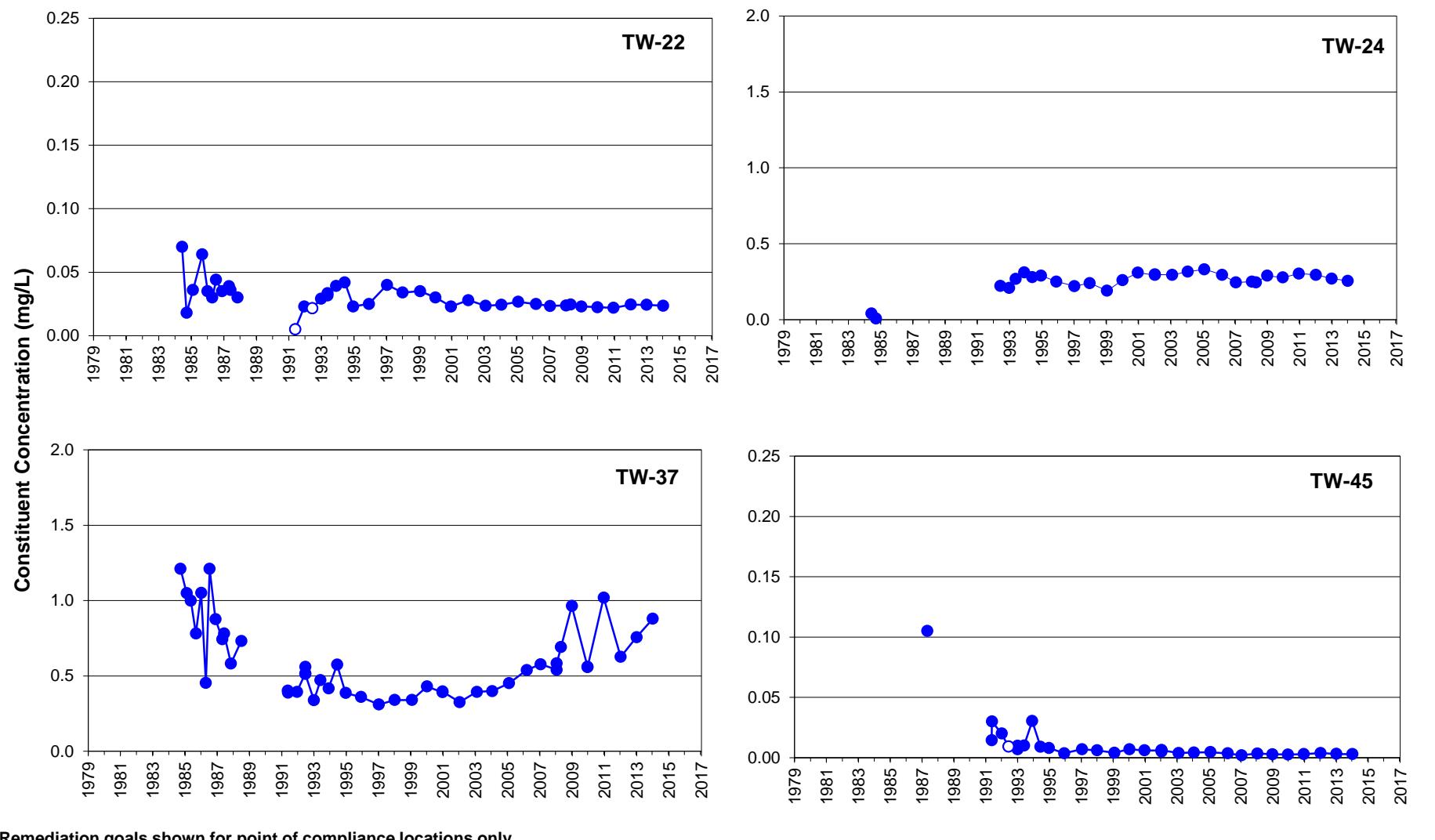
- LEGEND
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE A-10

CADMUM IN NW POND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



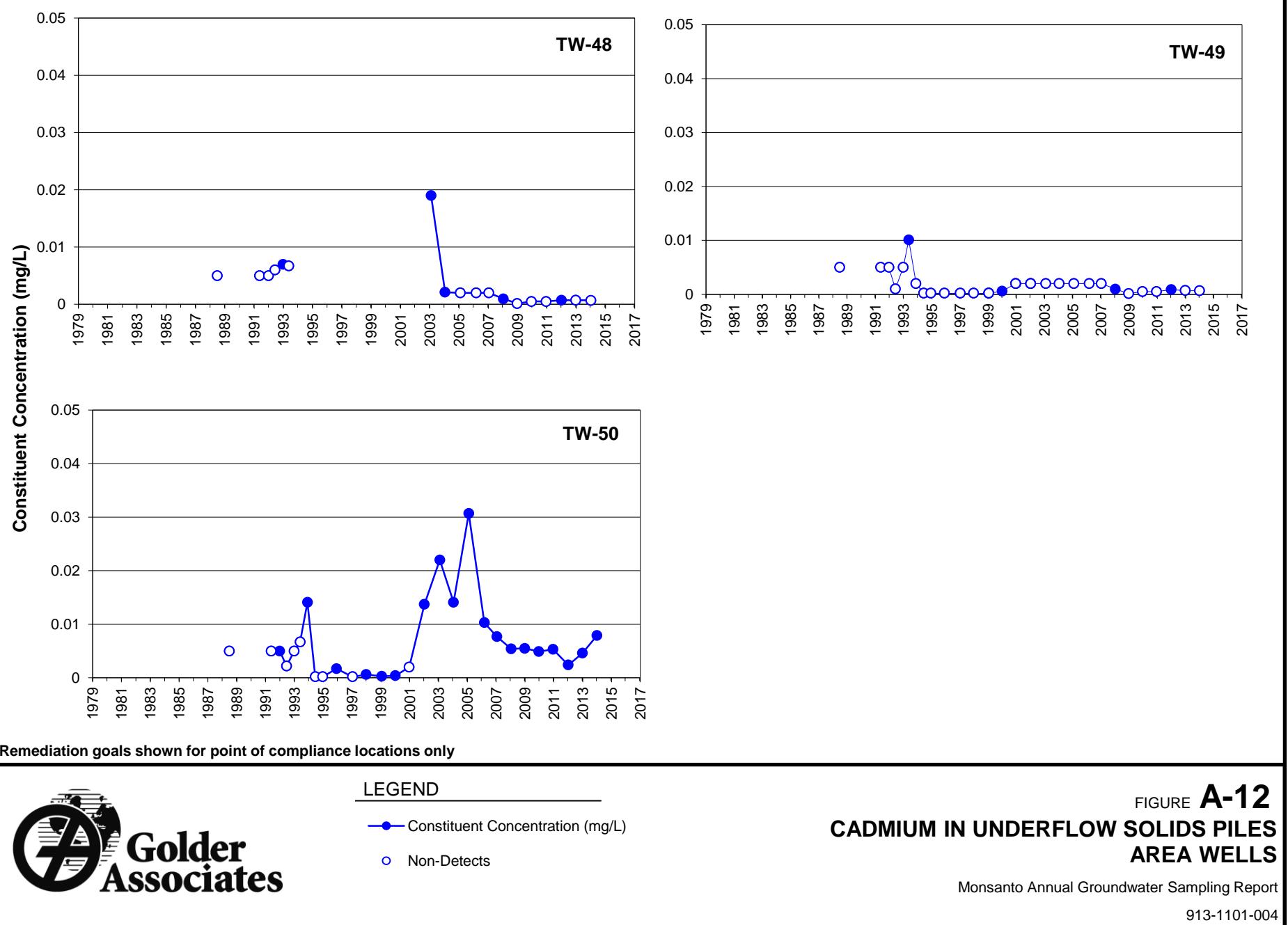
- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

CADMUM IN OLD UNDERFLOW SOLIDS POND AREA WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004

FIGURE A-11



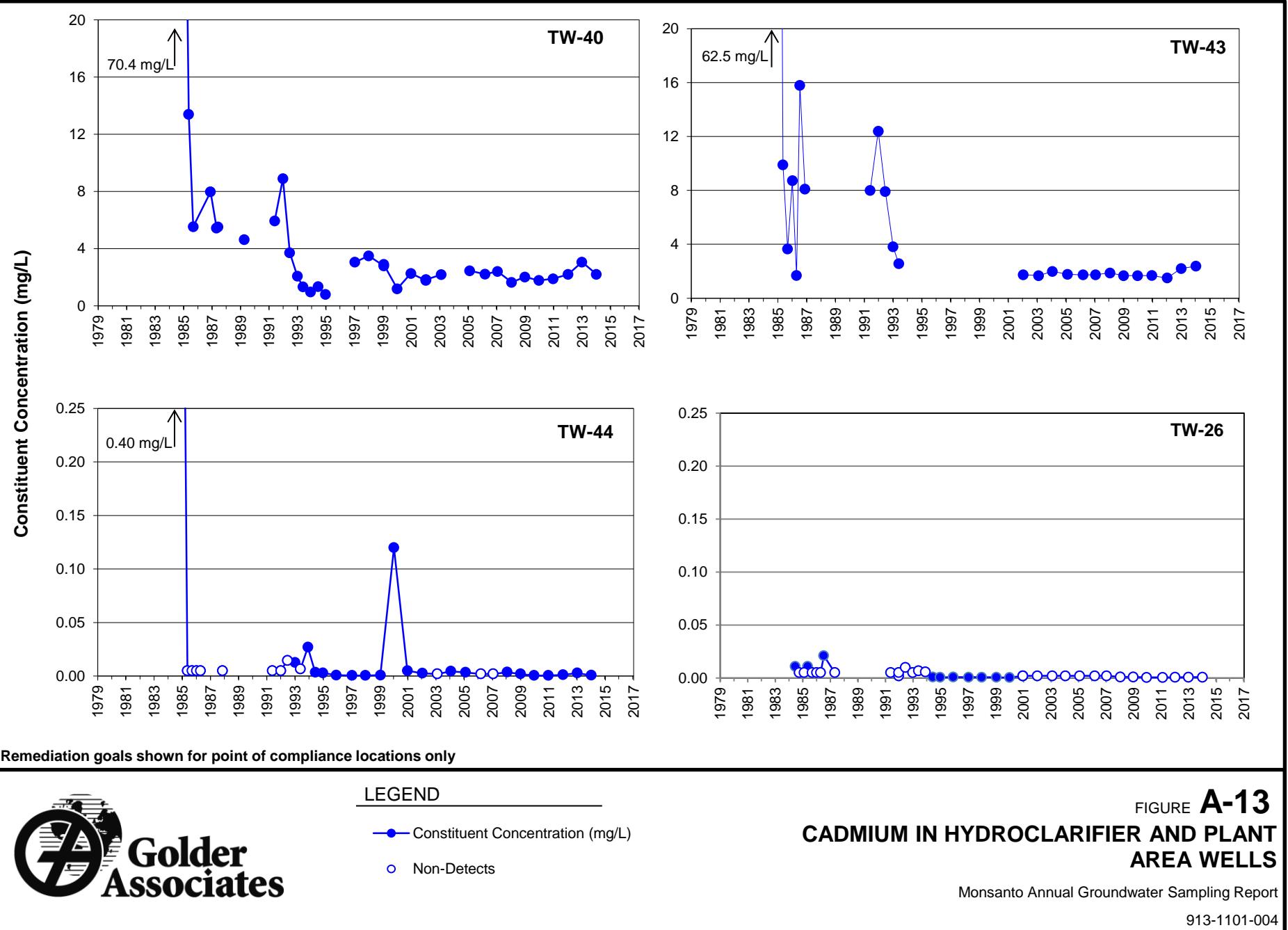
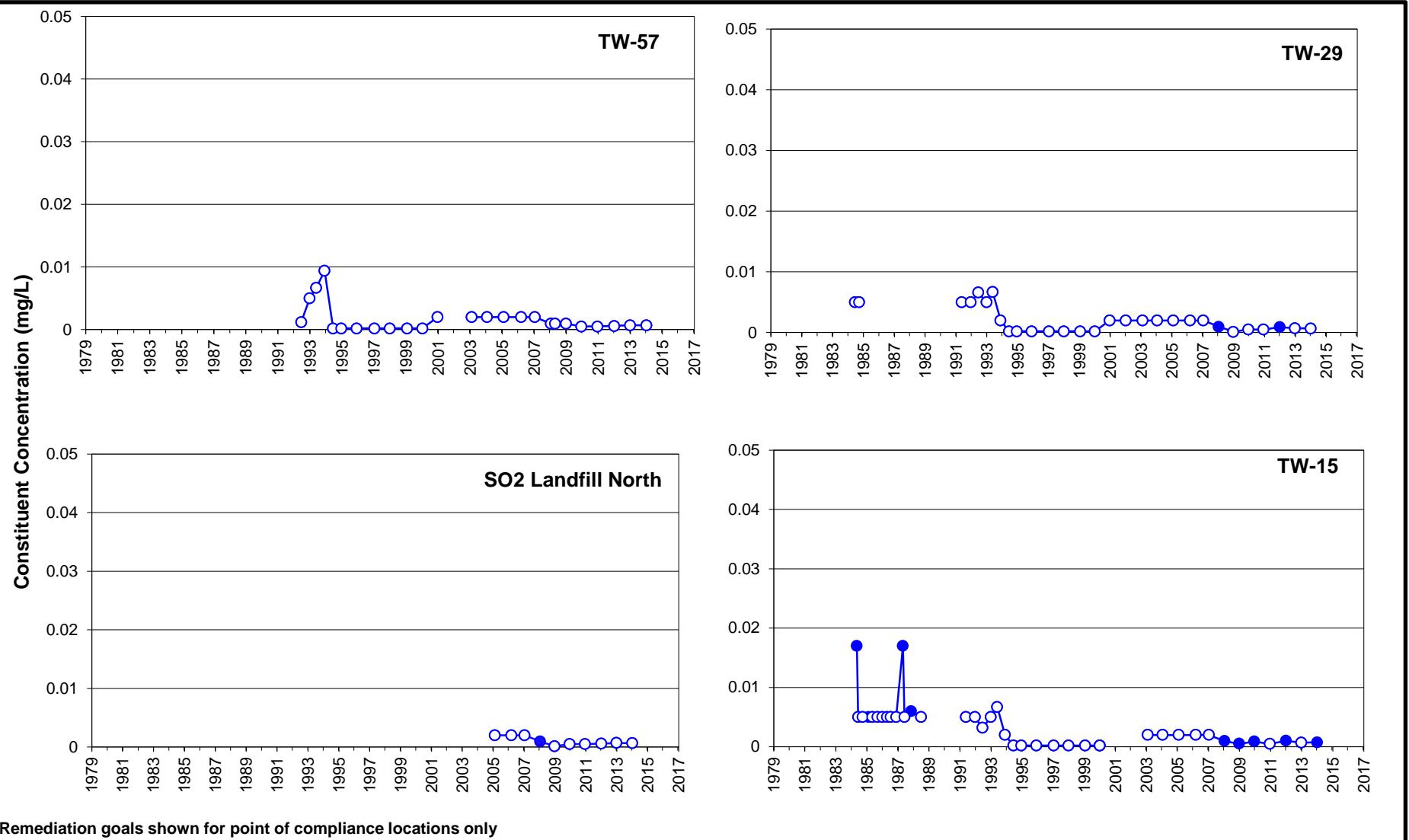


FIGURE A-13
CADMUM IN HYDROCLARIFIER AND PLANT AREA WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



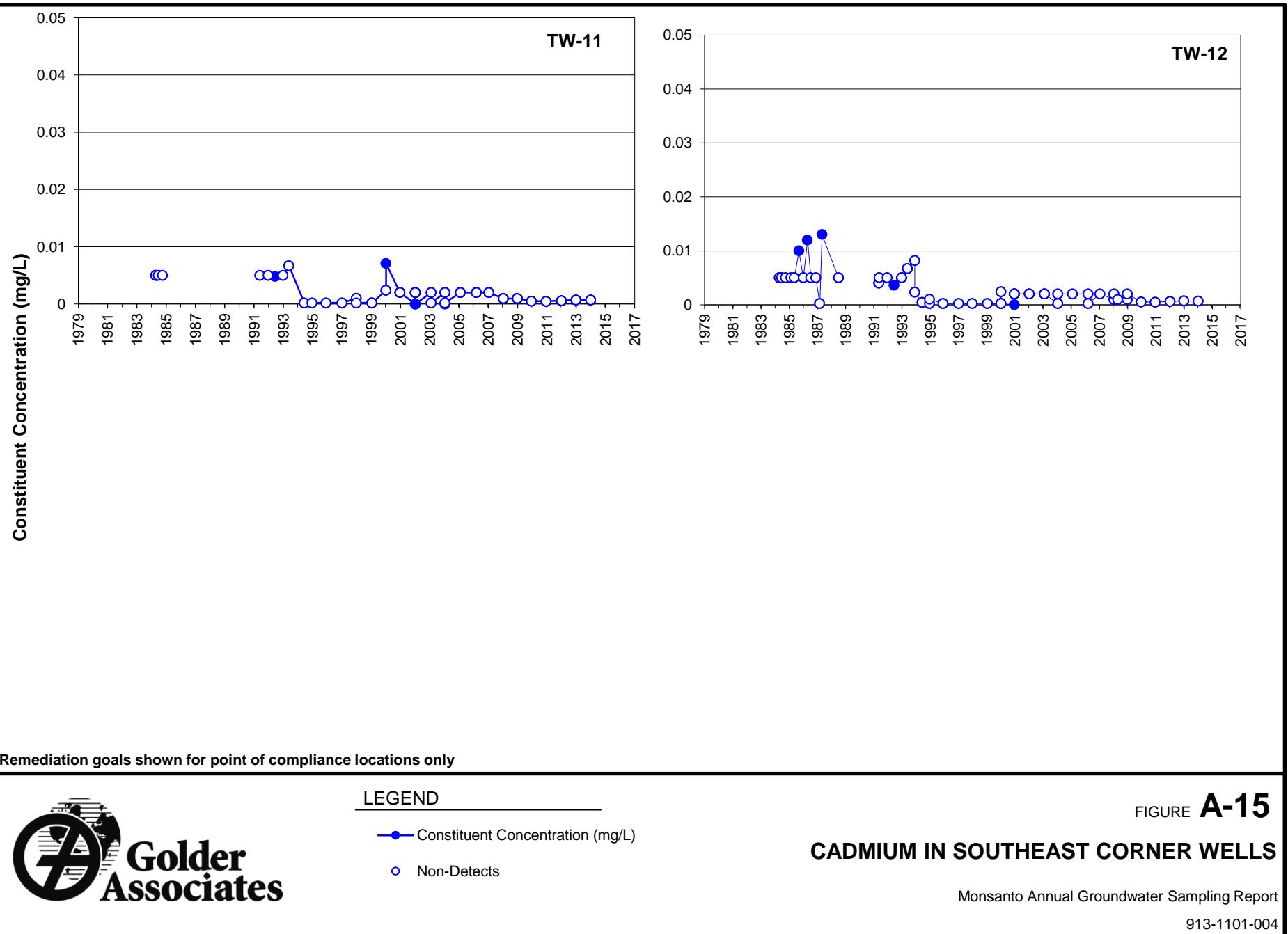
- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

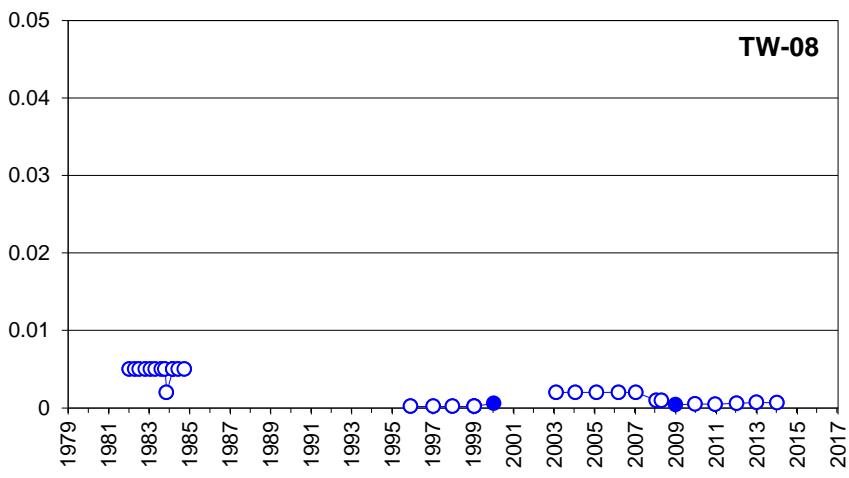
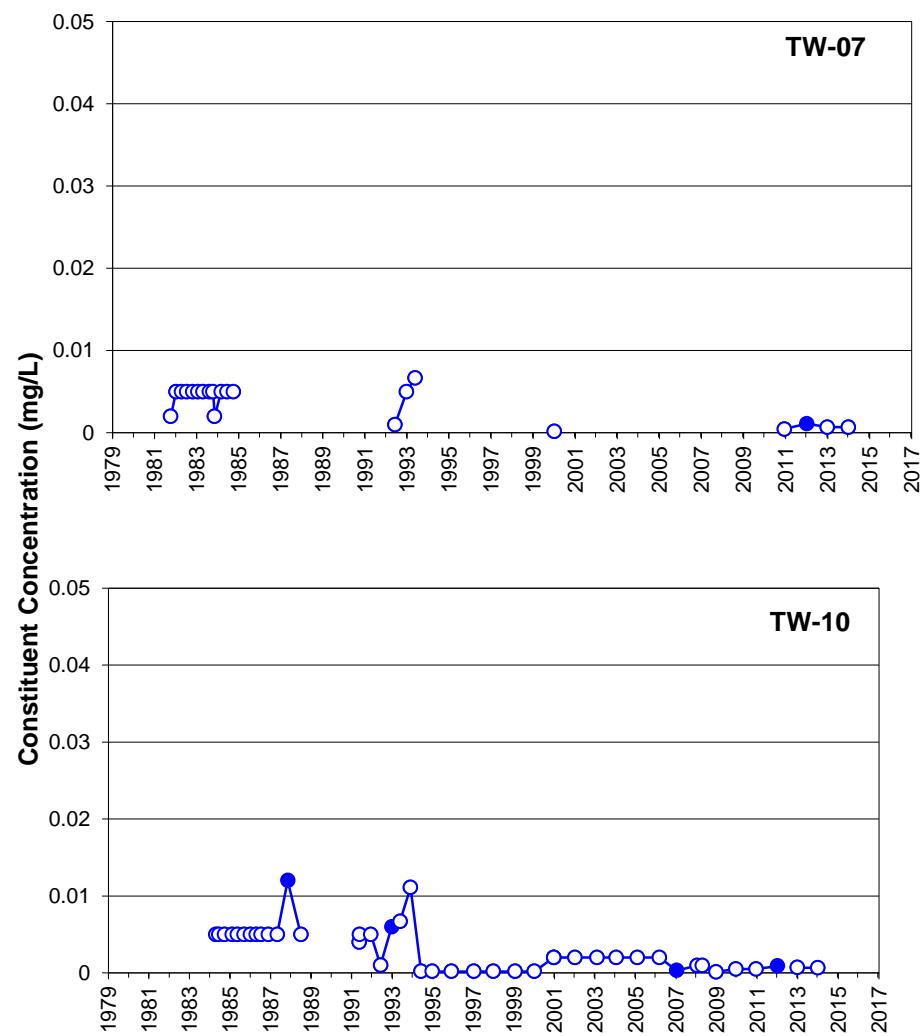
FIGURE A-14

CADMUM IN BACKGROUND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only

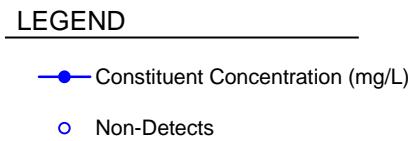
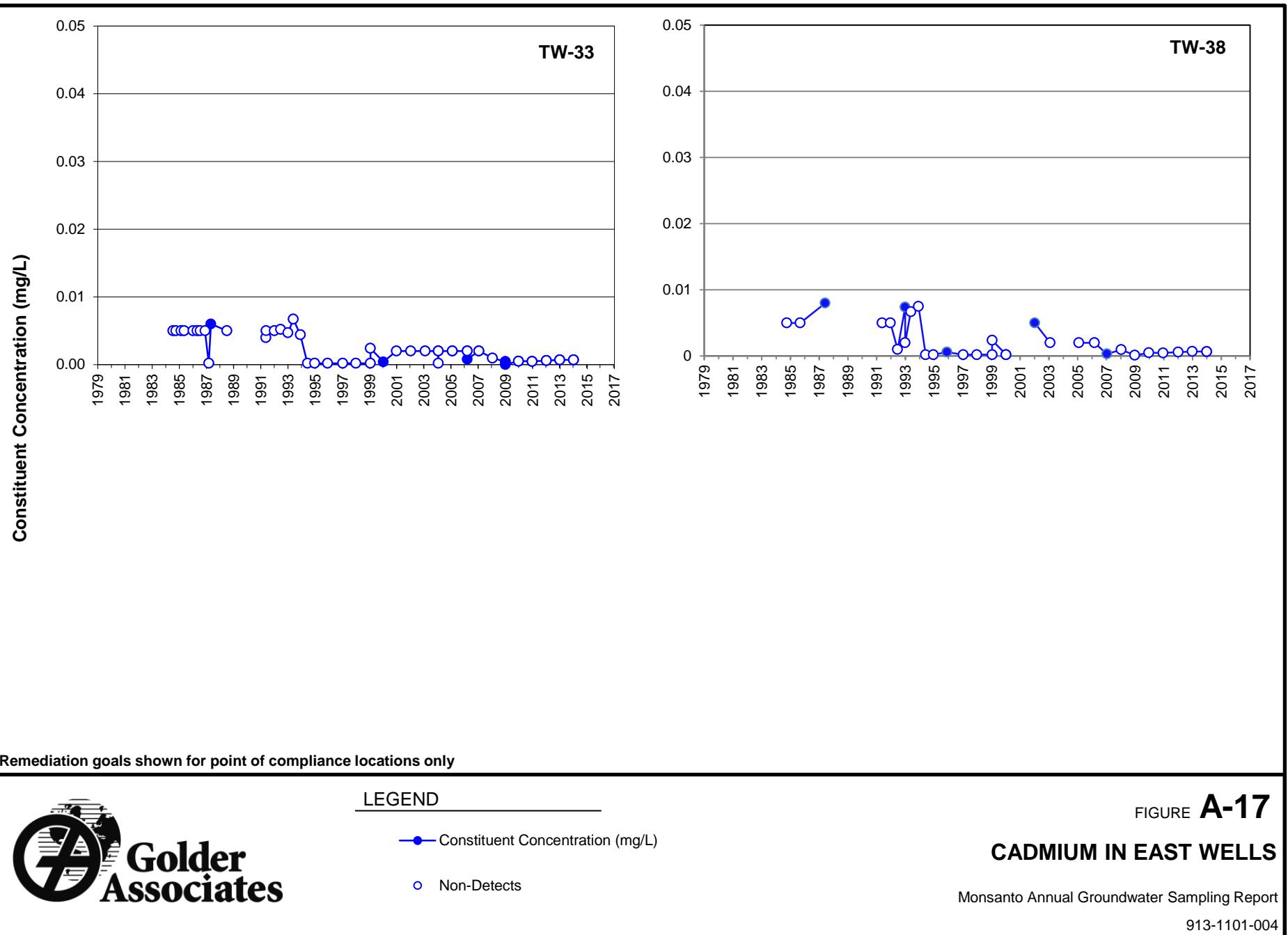


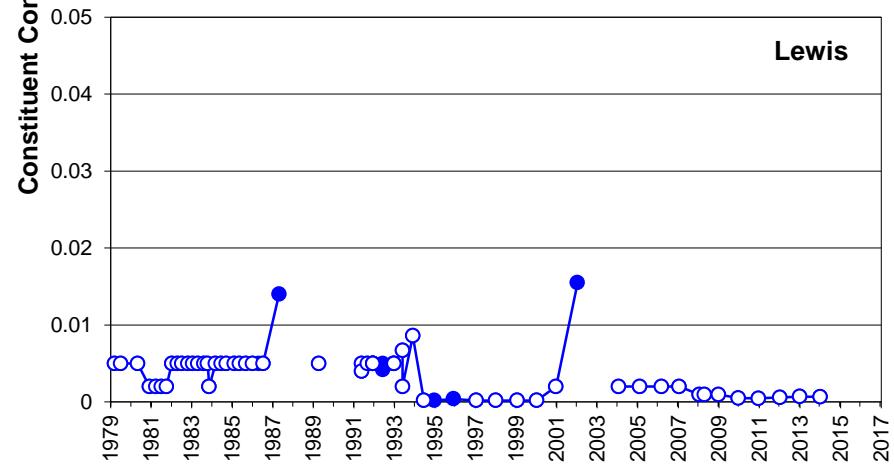
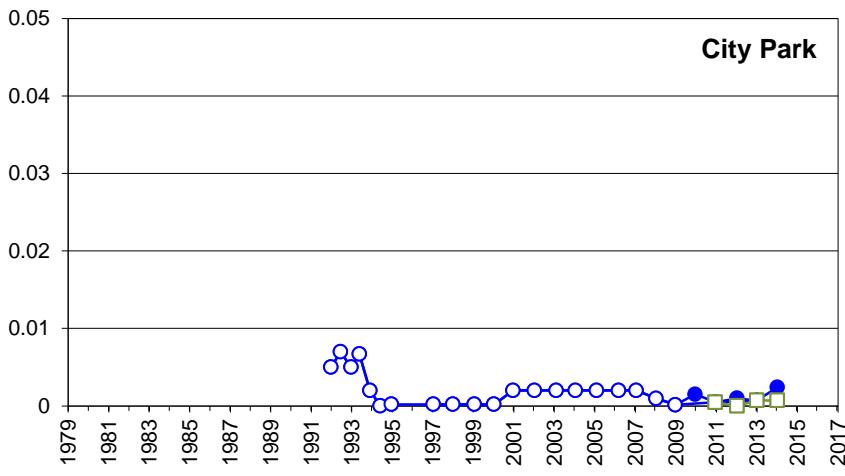
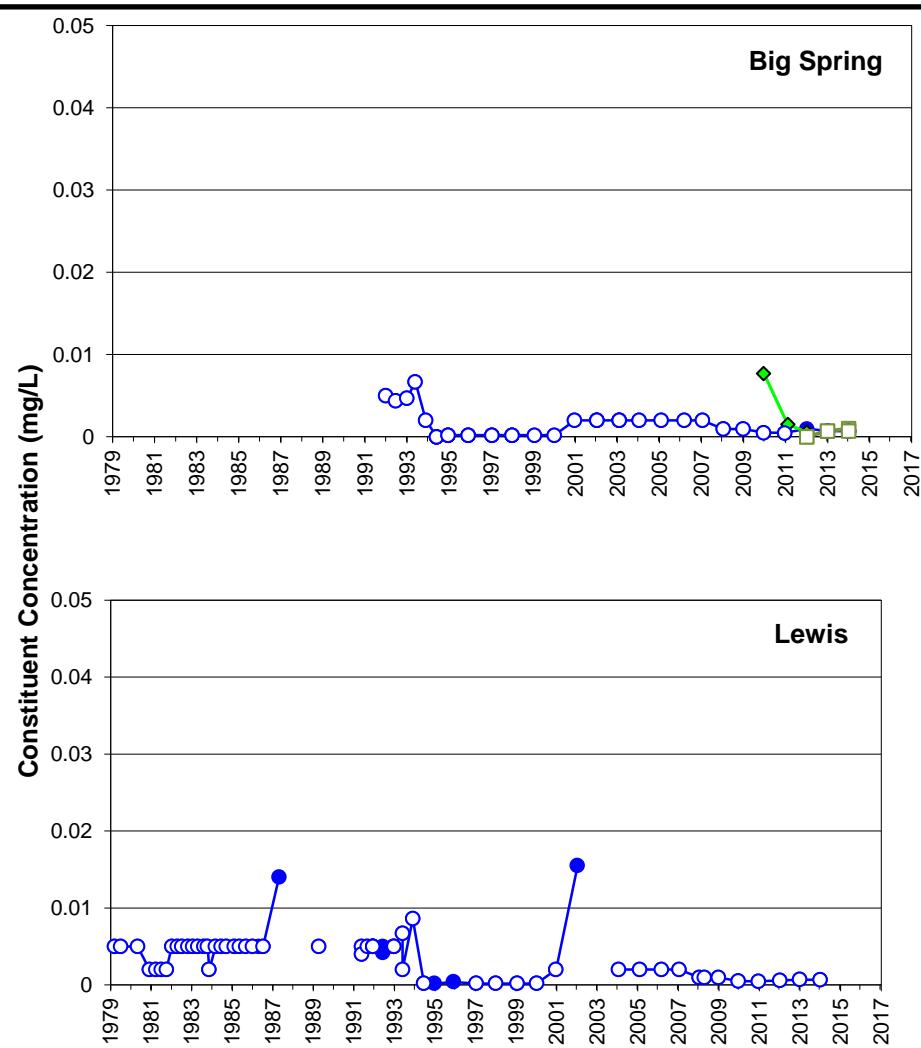
FIGURE A-16

CADMUM IN SOUTHWEST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



LEGEND

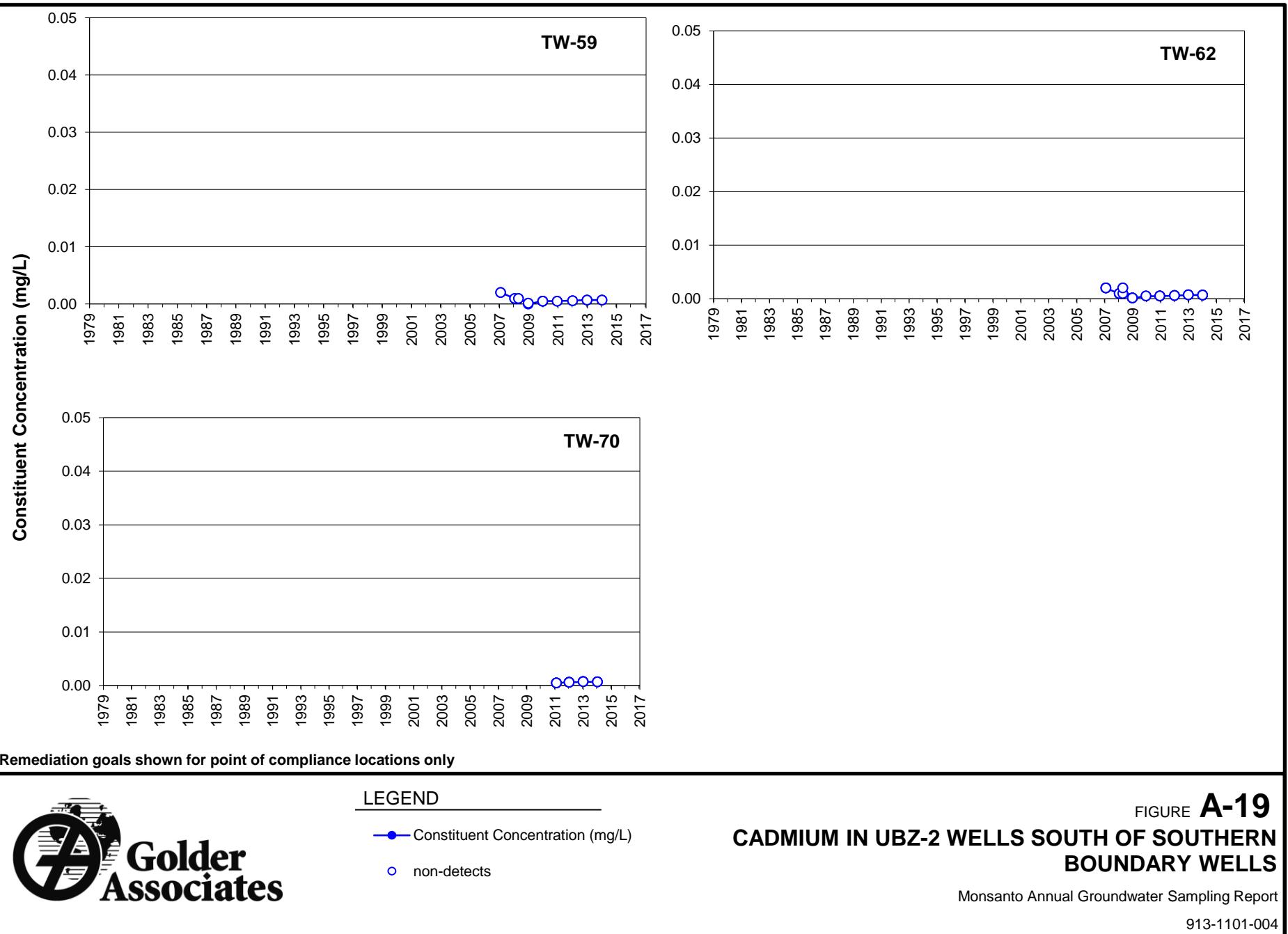
- Constituent Concentration (mg/L)
- Non-Detects
- ◆ SW Spring Above Confluence
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

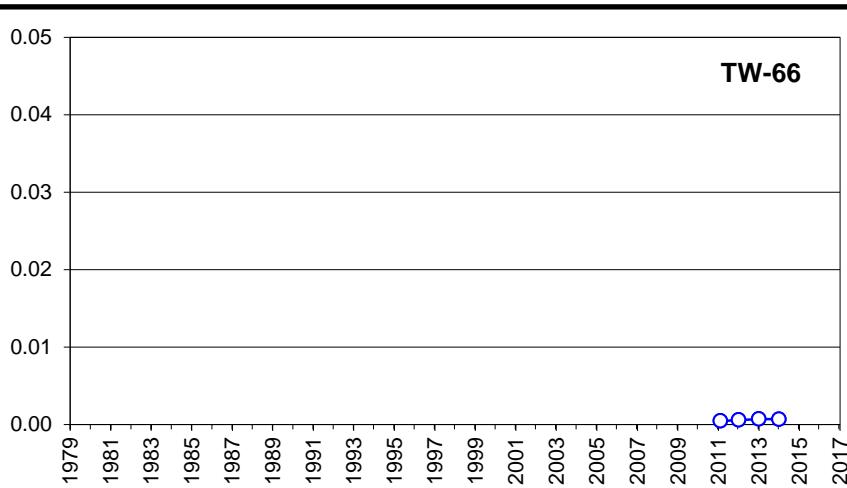
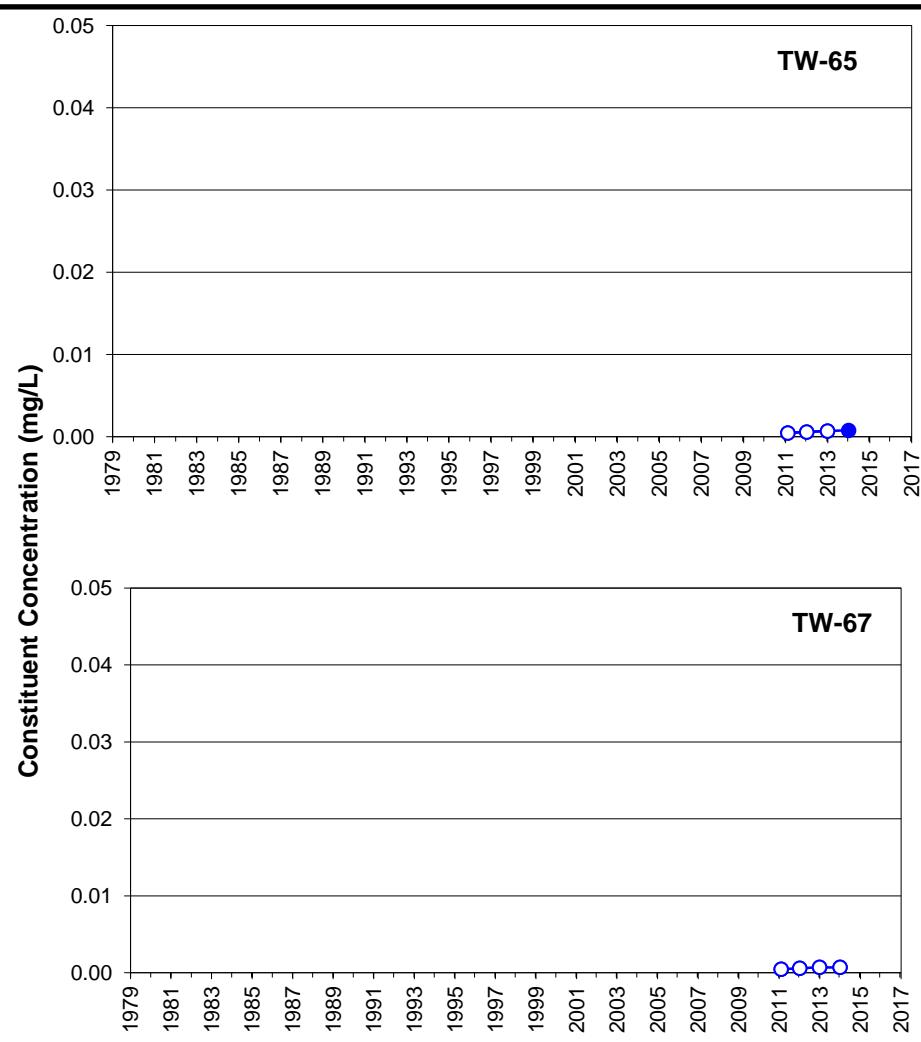
FIGURE A-18

CADMUM IN OFFSITE WELLS AND SPRINGS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



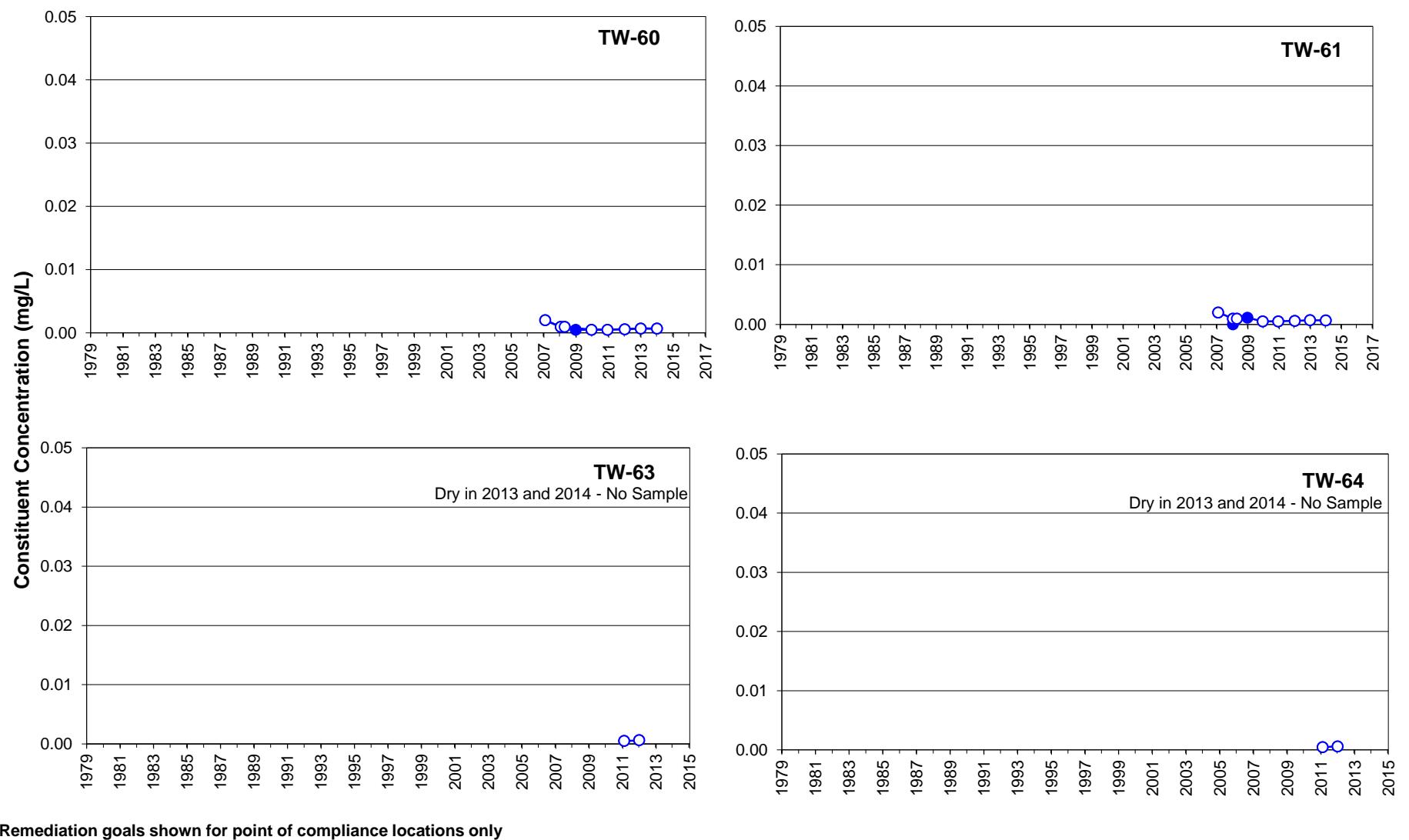
LEGEND

- Constituent Concentration (mg/L)
- non-detects

FIGURE A-20
CADMUM IN UBZ-2 WELLS AT PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

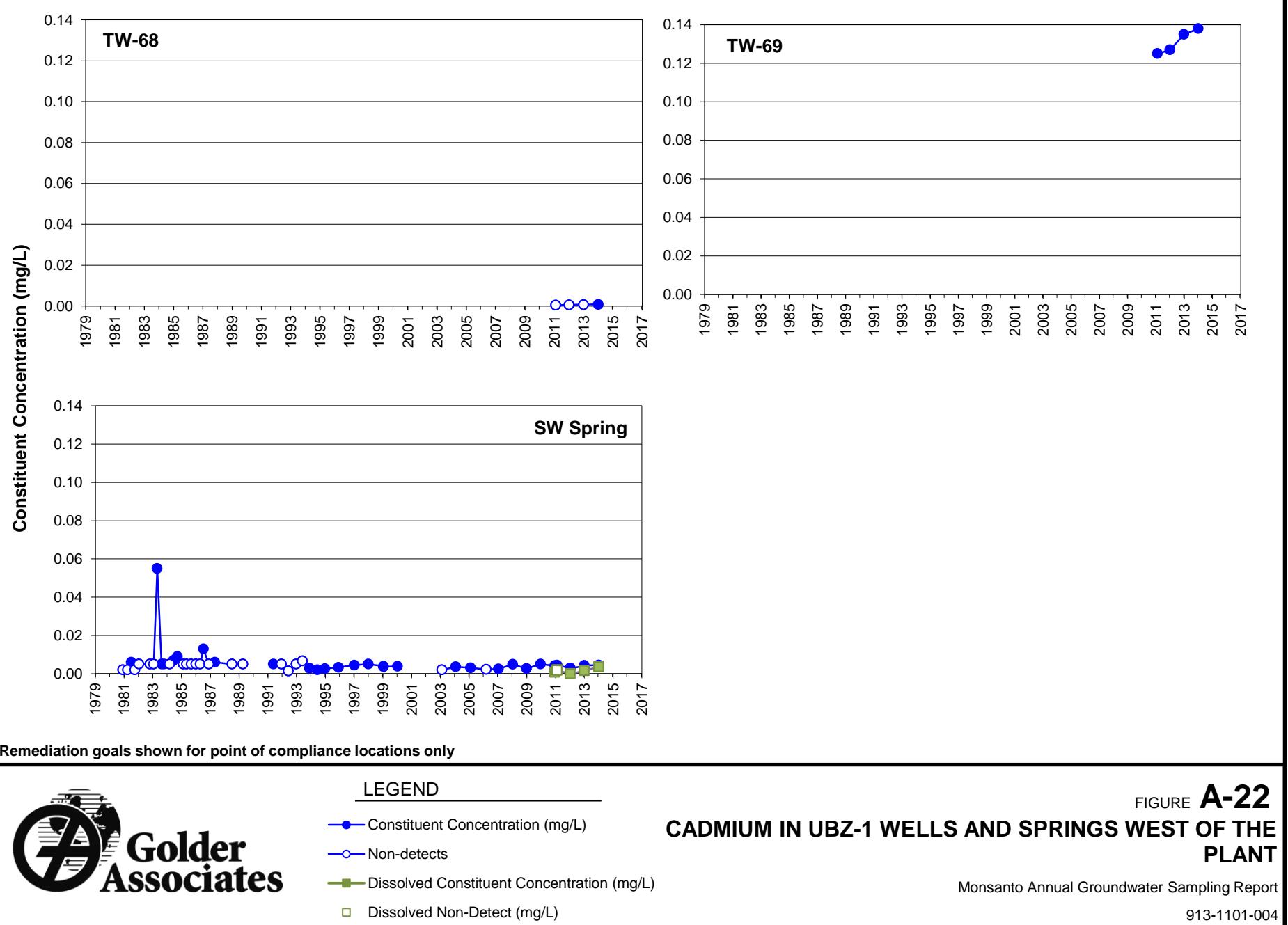
- Constituent Concentration (mg/L)
- non-detects

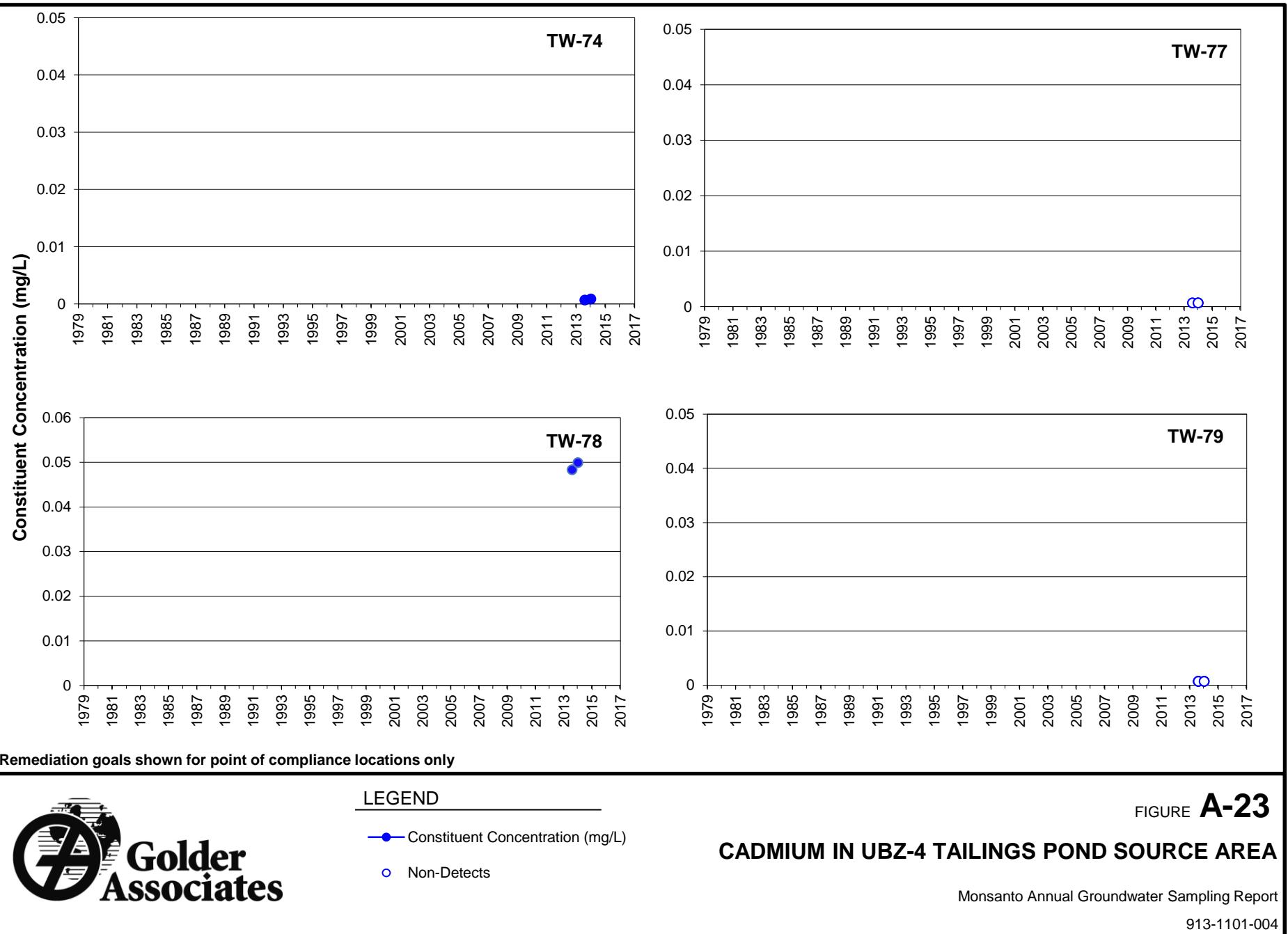
FIGURE A-21

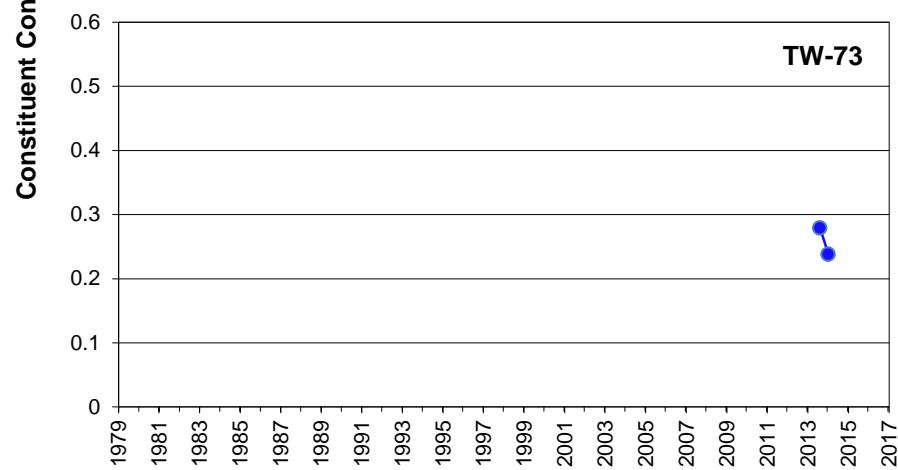
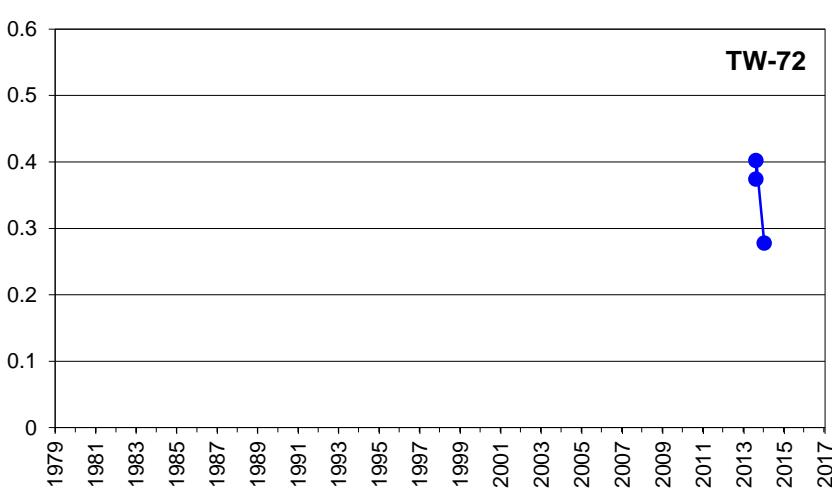
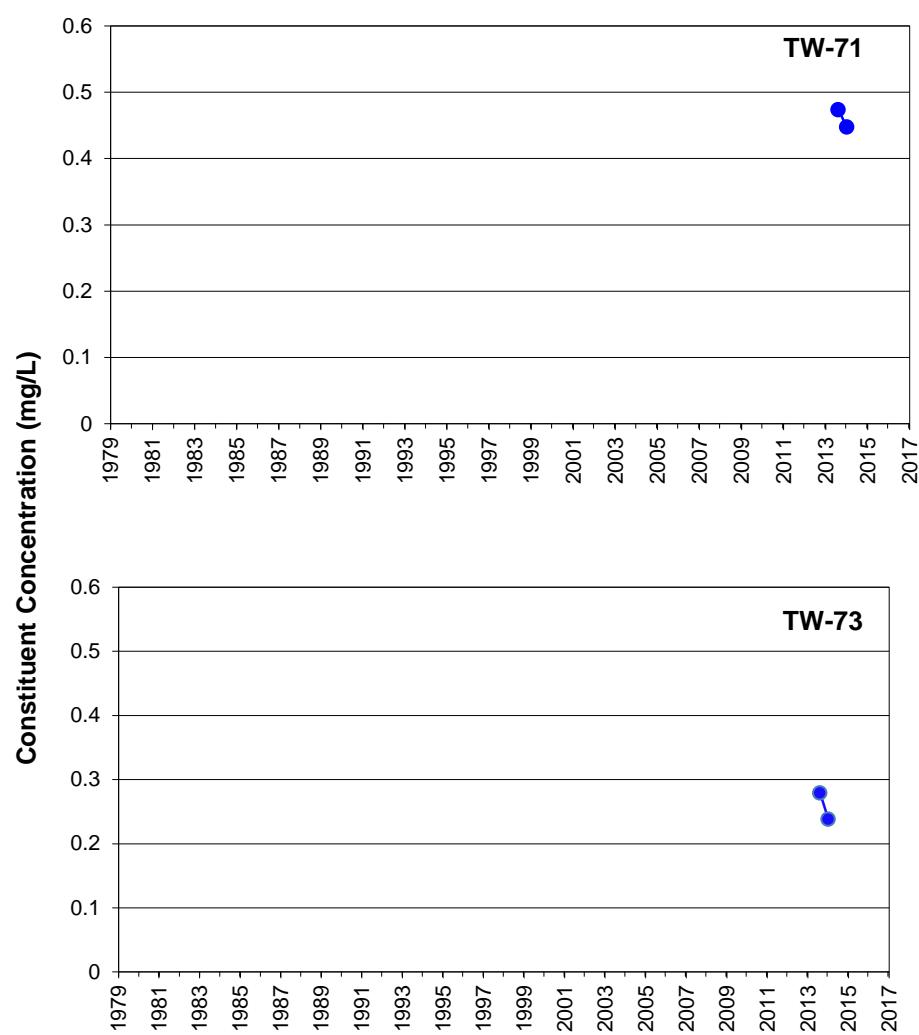
CADMUM IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004







Remediation goals shown for point of compliance locations only



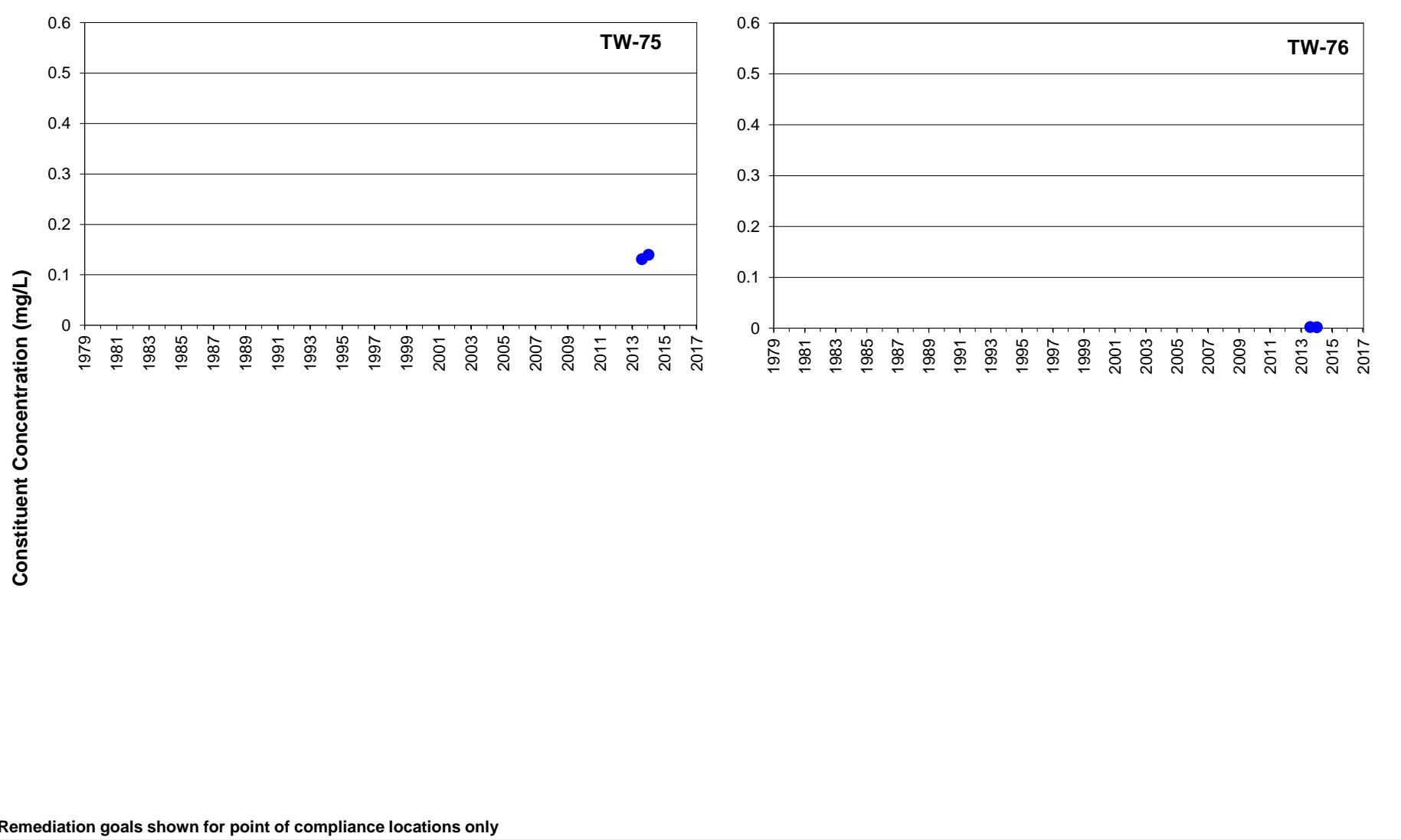
- LEGEND
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE A-24

CADMUM IN UBZ-2 OLD UFS PONDS SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

- Constituent Concentration (mg/L)
- Non-Detects

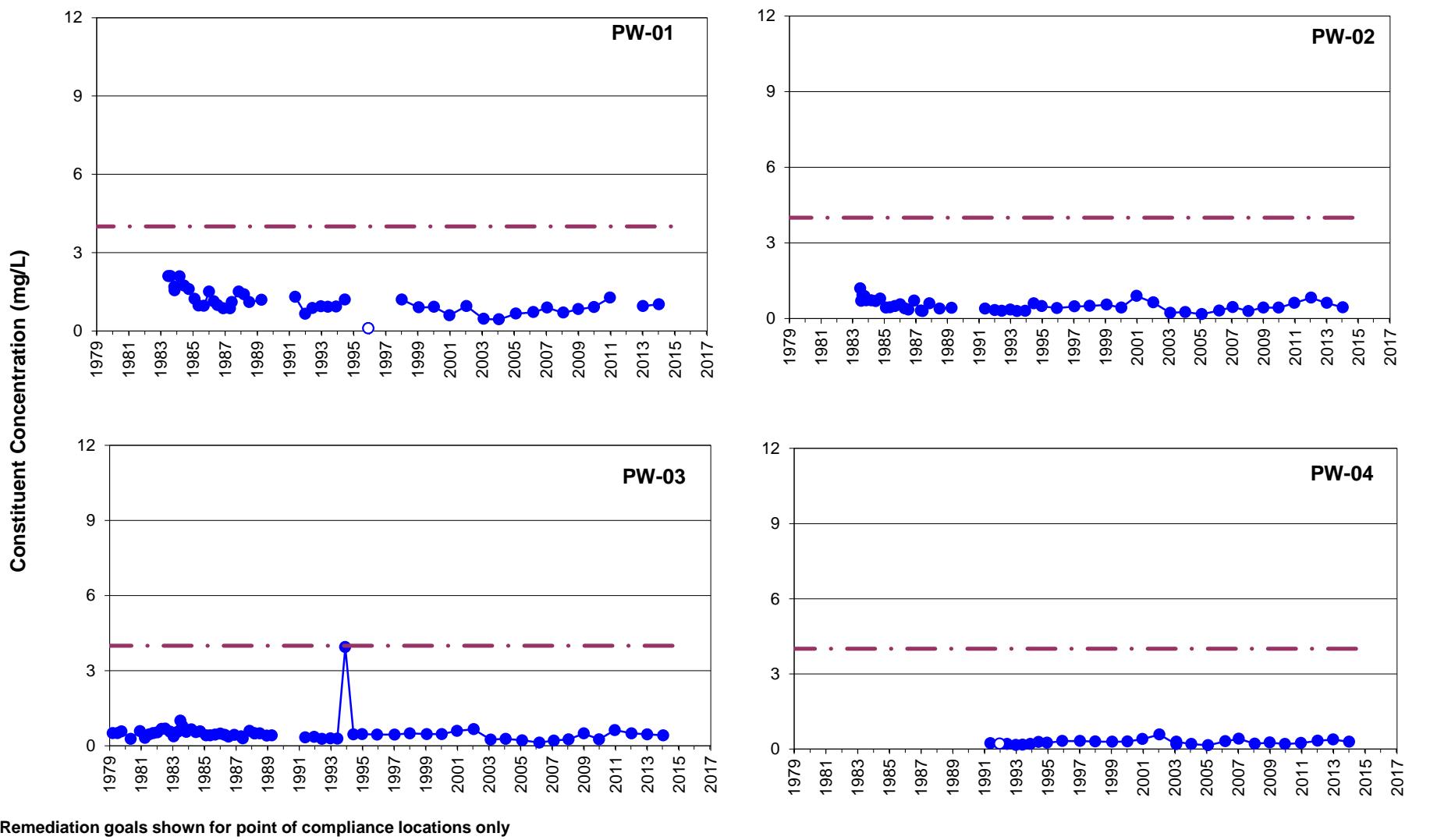
FIGURE A-25

CADMUM IN UBZ-2 TAILINGS POND SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004

APPENDIX B
TIME-HISTORY GRAPHS FOR FLUORIDE



LEGEND

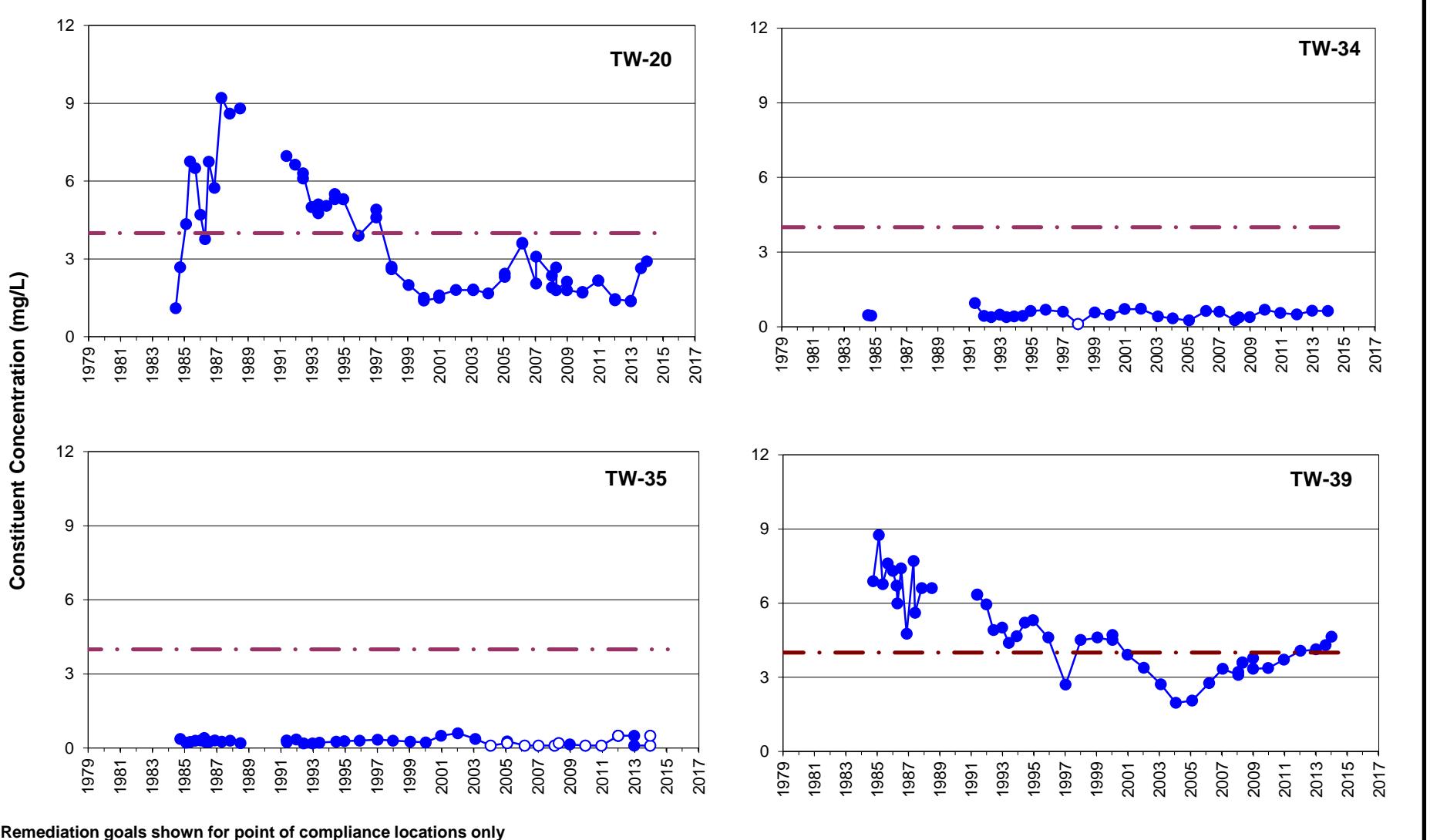
- Constituent Concentration (mg/L)
- Non-Detects
- Fluoride Remediation Goal (4 mg/L)

FIGURE B-1

FLUORIDE IN PRODUCTION WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

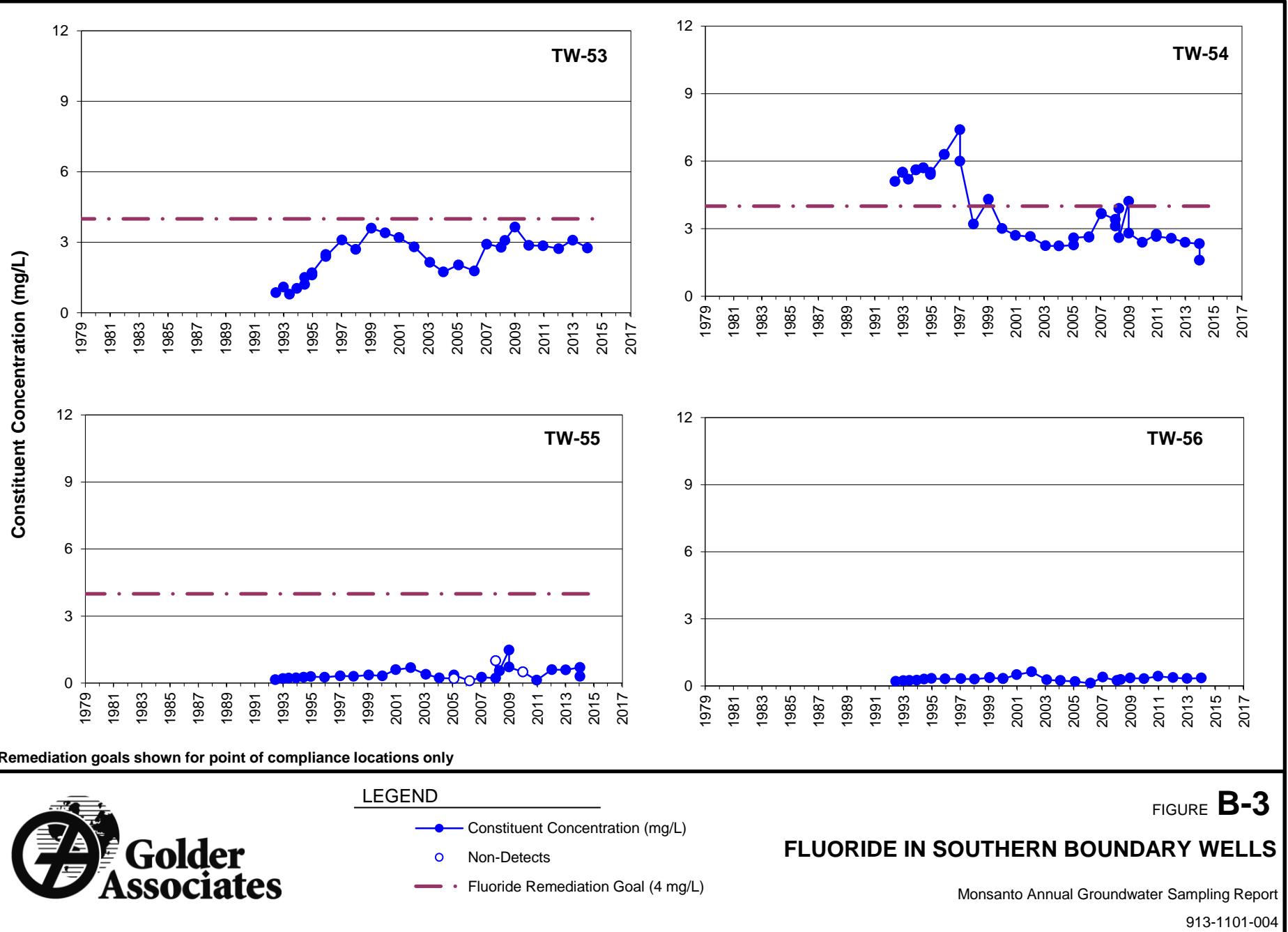
- Constituent Concentration (mg/L)
- Non-Detects
- Fluoride Remediation Goal (4 mg/L)

FIGURE B-2

FLUORIDE IN SOUTH FENCELINE WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



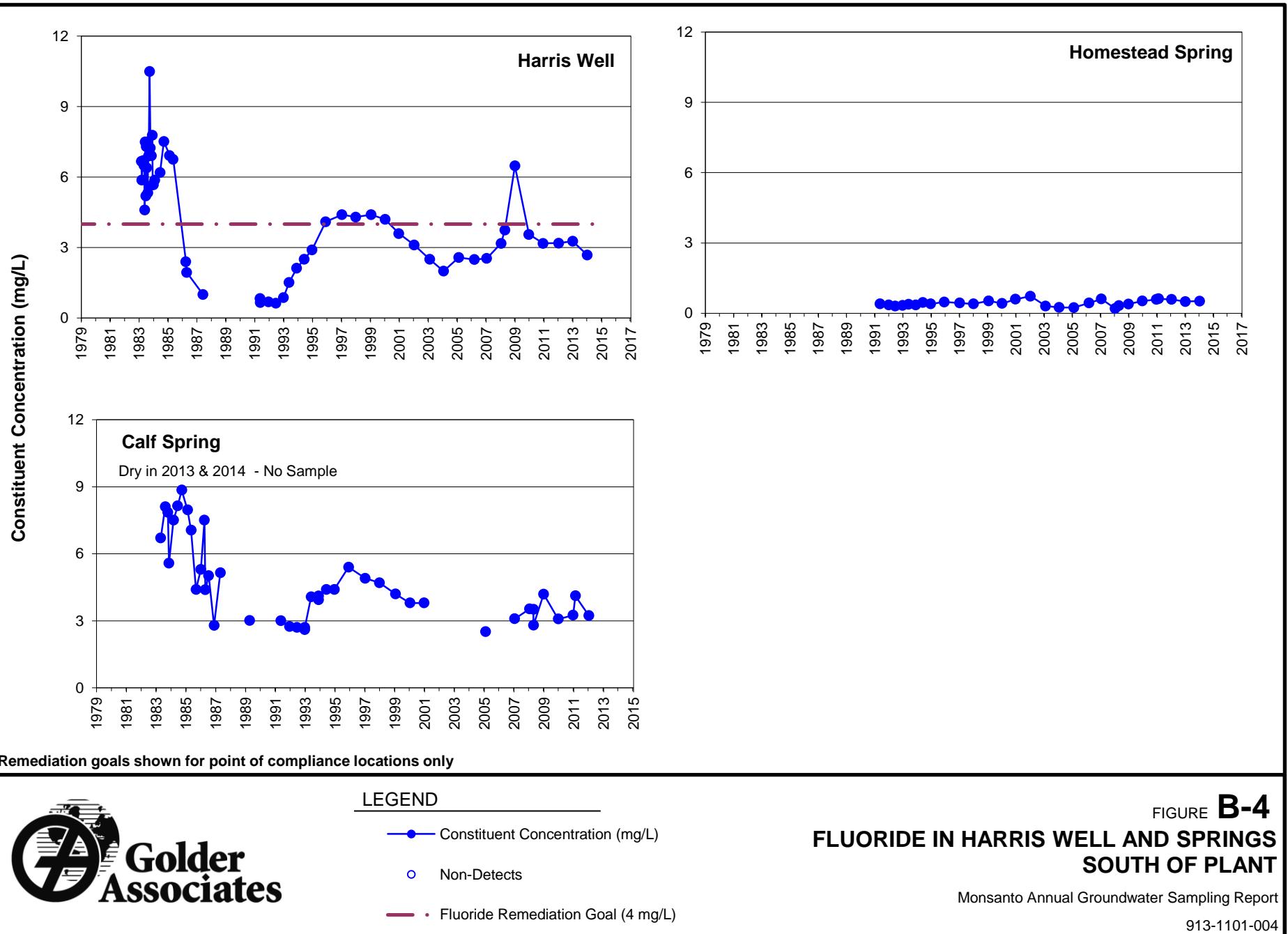
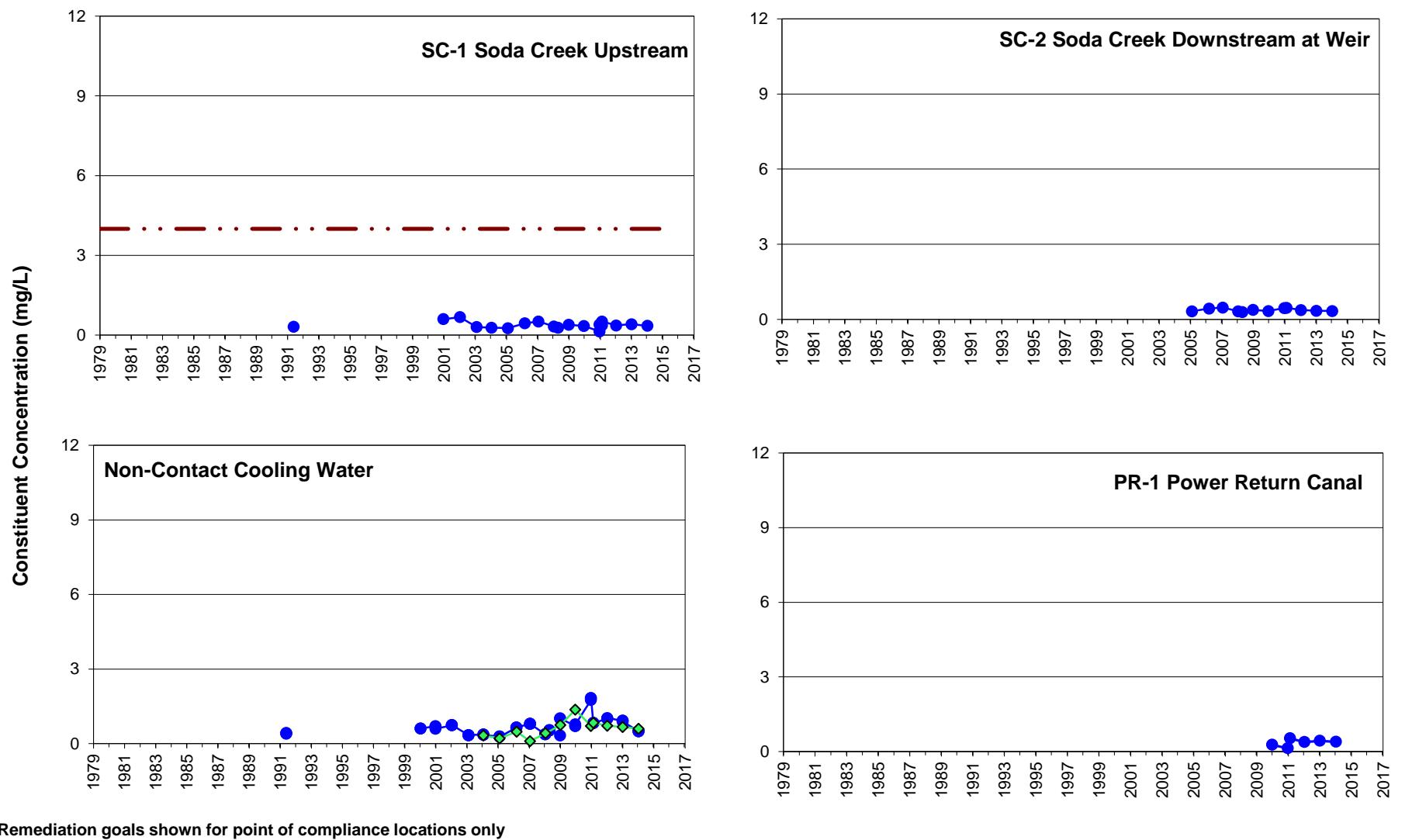


FIGURE B-4
**FLUORIDE IN HARRIS WELL AND SPRINGS
SOUTH OF PLANT**

Monsanto Annual Groundwater Sampling Report
913-1101-004



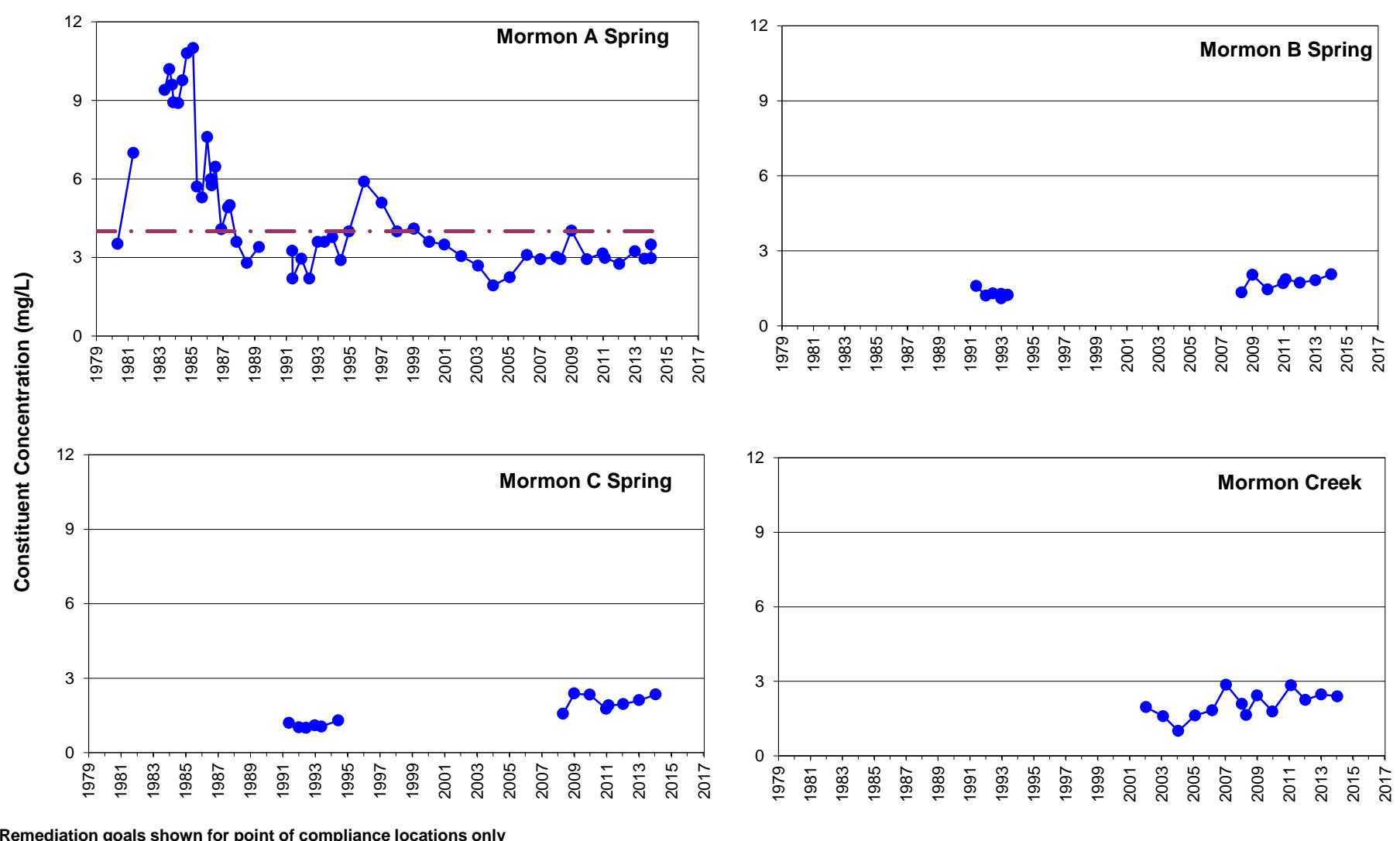


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Fluoride Remediation Goal (4 mg/L)
 - ◆ Pond Inlet

FIGURE B-5
FLUORIDE IN SODA CREEK AND NON-CONTACT COOLING WATER DISCHARGE

Monsanto Annual Groundwater Sampling Report

913-1101-004



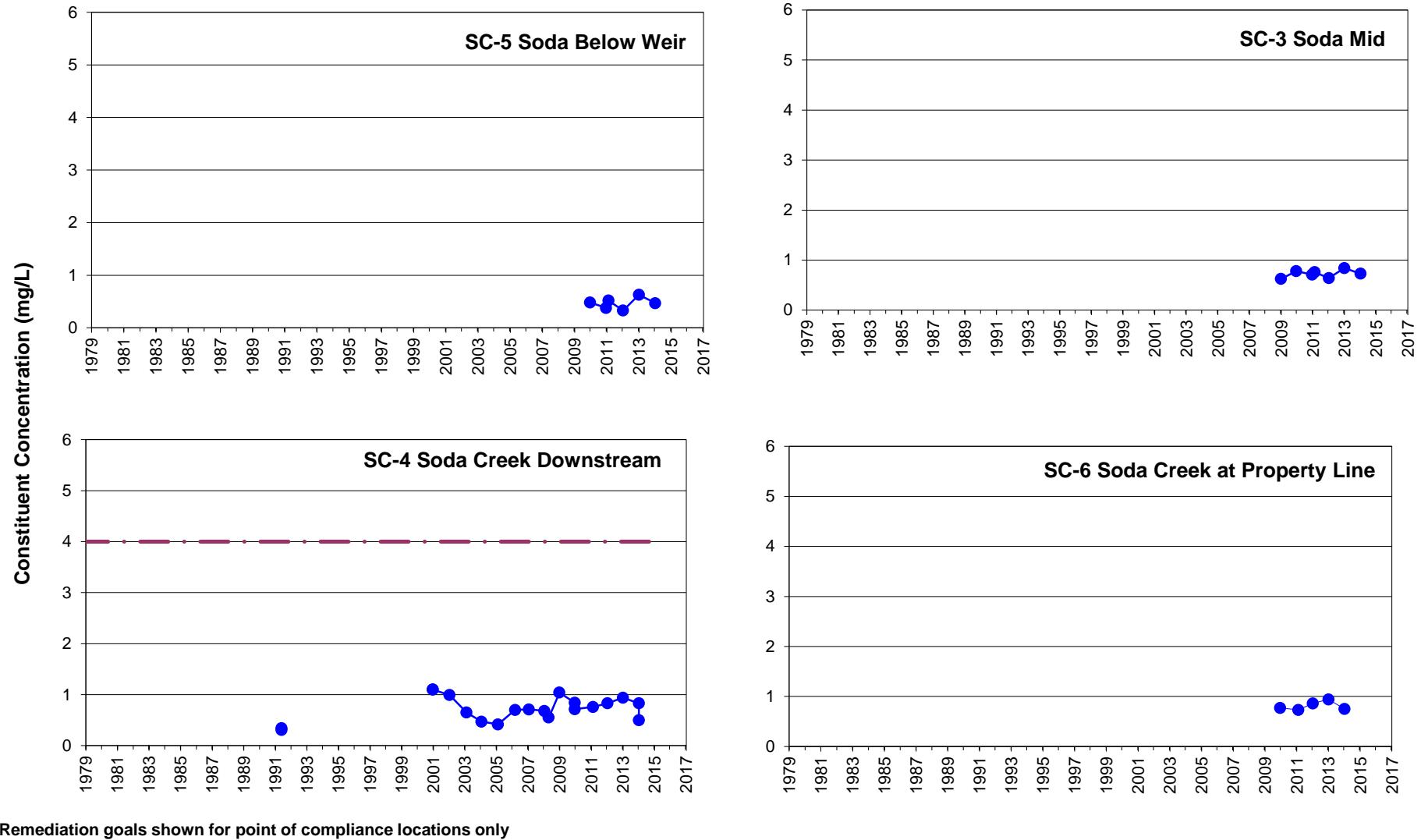
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Fluoride Remediation Goal (4 mg/L)

FIGURE B-6
**FLUORIDE IN MORMON A, B, AND C SPRINGS
AND MORMON CREEK**

Monsanto Annual Groundwater Sampling Report

913-1101-004

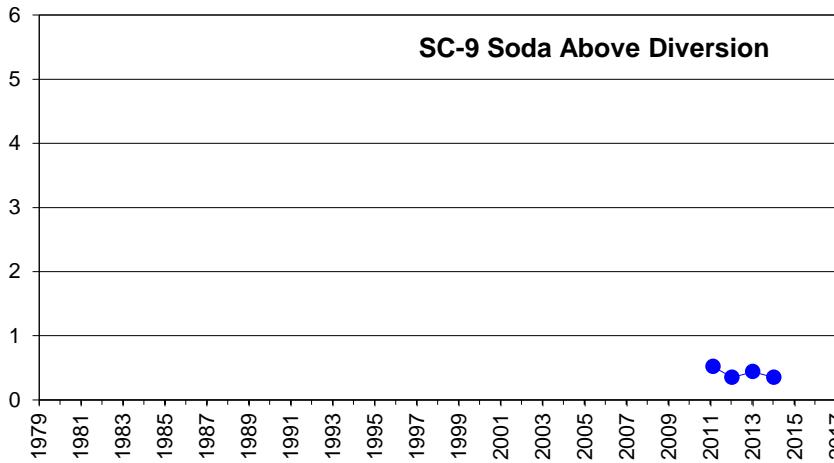
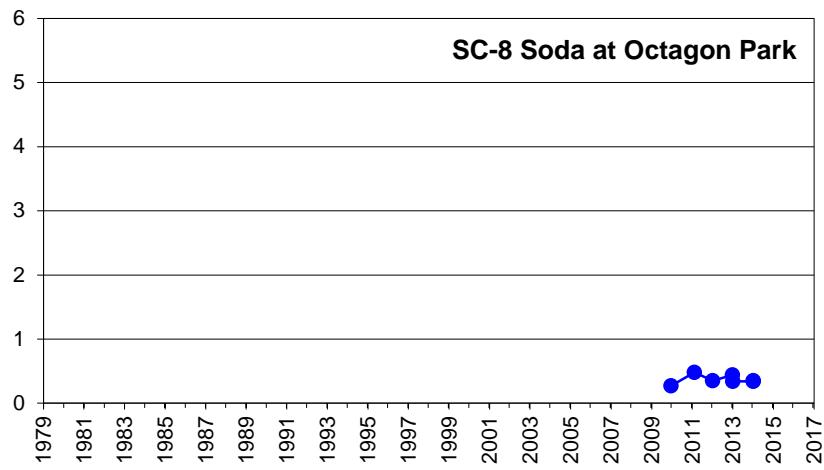
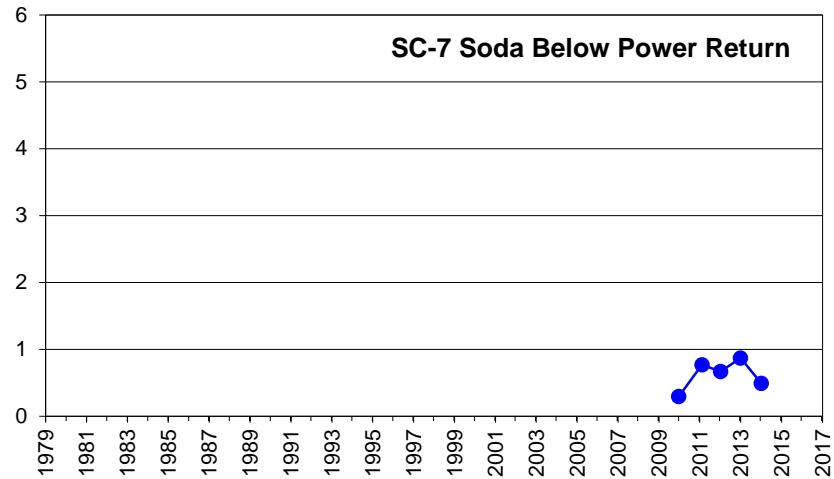


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Remediation Goal (4 mg/L)

FIGURE B-7
FLUORIDE IN SODA CREEK - WEIR TO PROPERTY LINE

Monsanto Annual Groundwater Sampling Report
913-1101-004

Constituent Concentration (mg/L)



Remediation goals shown for point of compliance locations only



LEGEND

—● Constituent Concentration (mg/L)

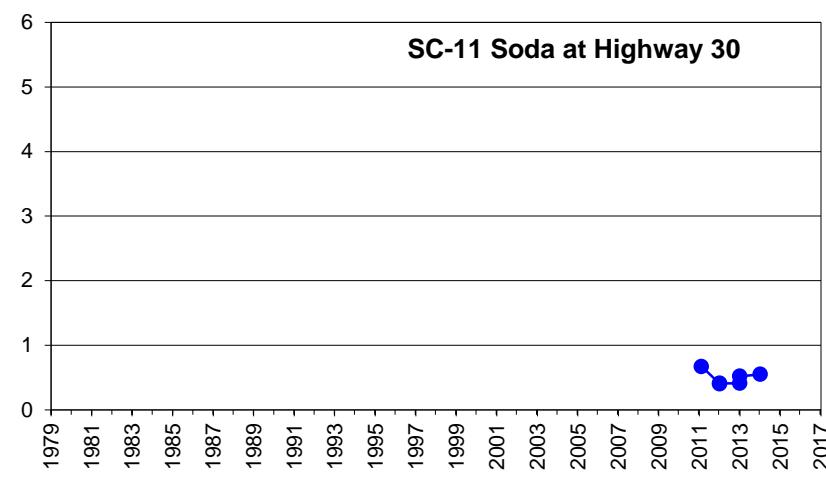
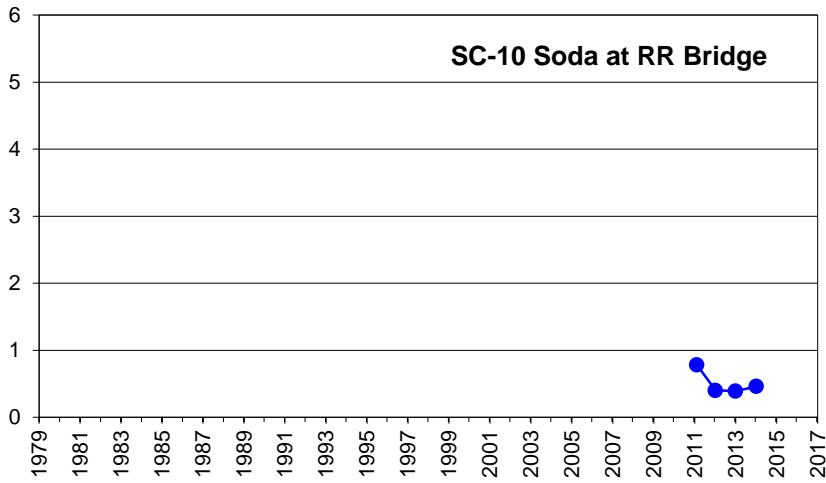
○ Non-Detects

FIGURE B-8
FLUORIDE IN SODA CREEK - BELOW PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004

Constituent Concentration (mg/L)



Remediation goals shown for point of compliance locations only

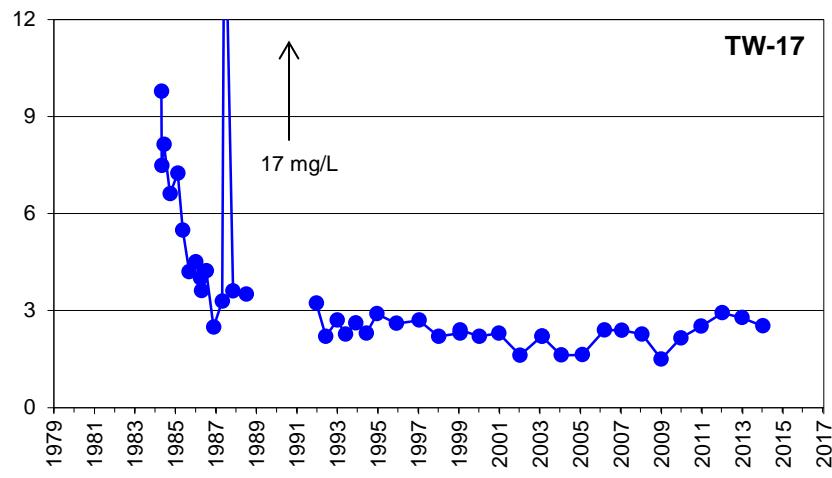
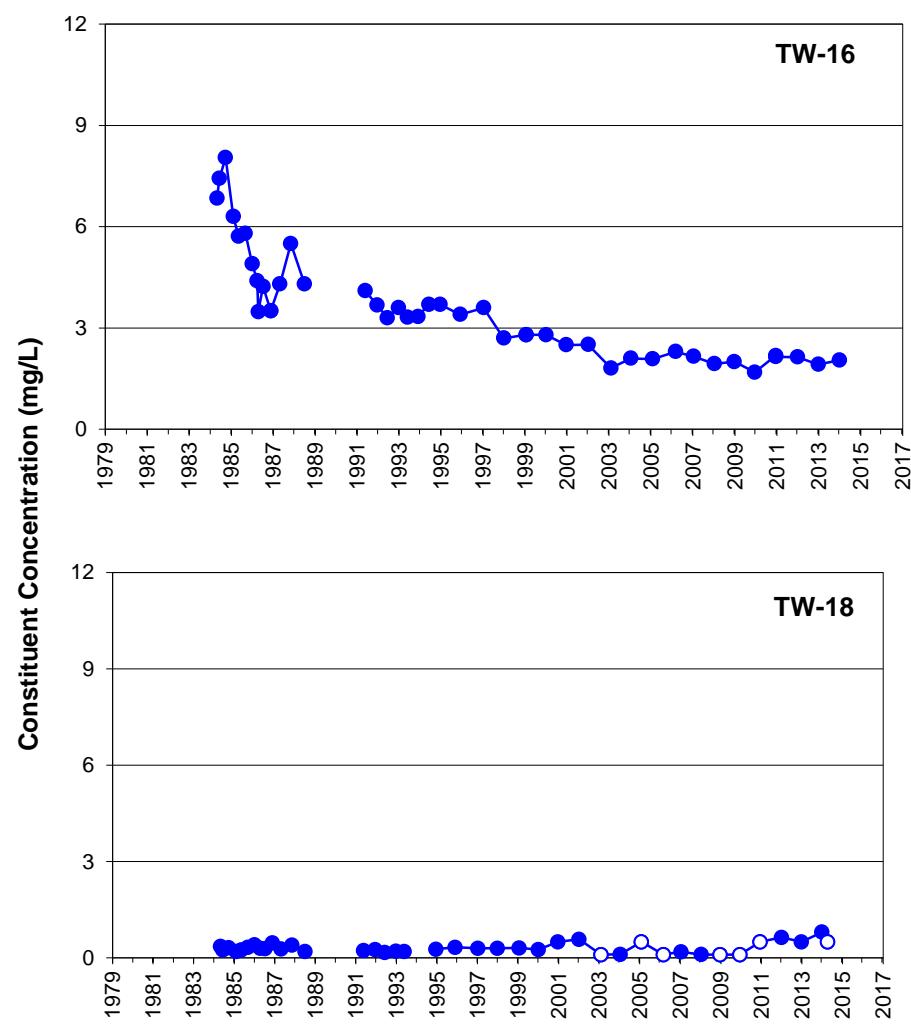


LEGEND

- Constituent Concentration (mg/L)
- Non-detect
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

FIGURE B-9
FLUORIDE IN SODA CREEK - ABOVE ALEXANDER
RESERVOIR

Monsanto Annual Groundwater Sampling Report
913-1101-004



Remediation goals shown for point of compliance locations only



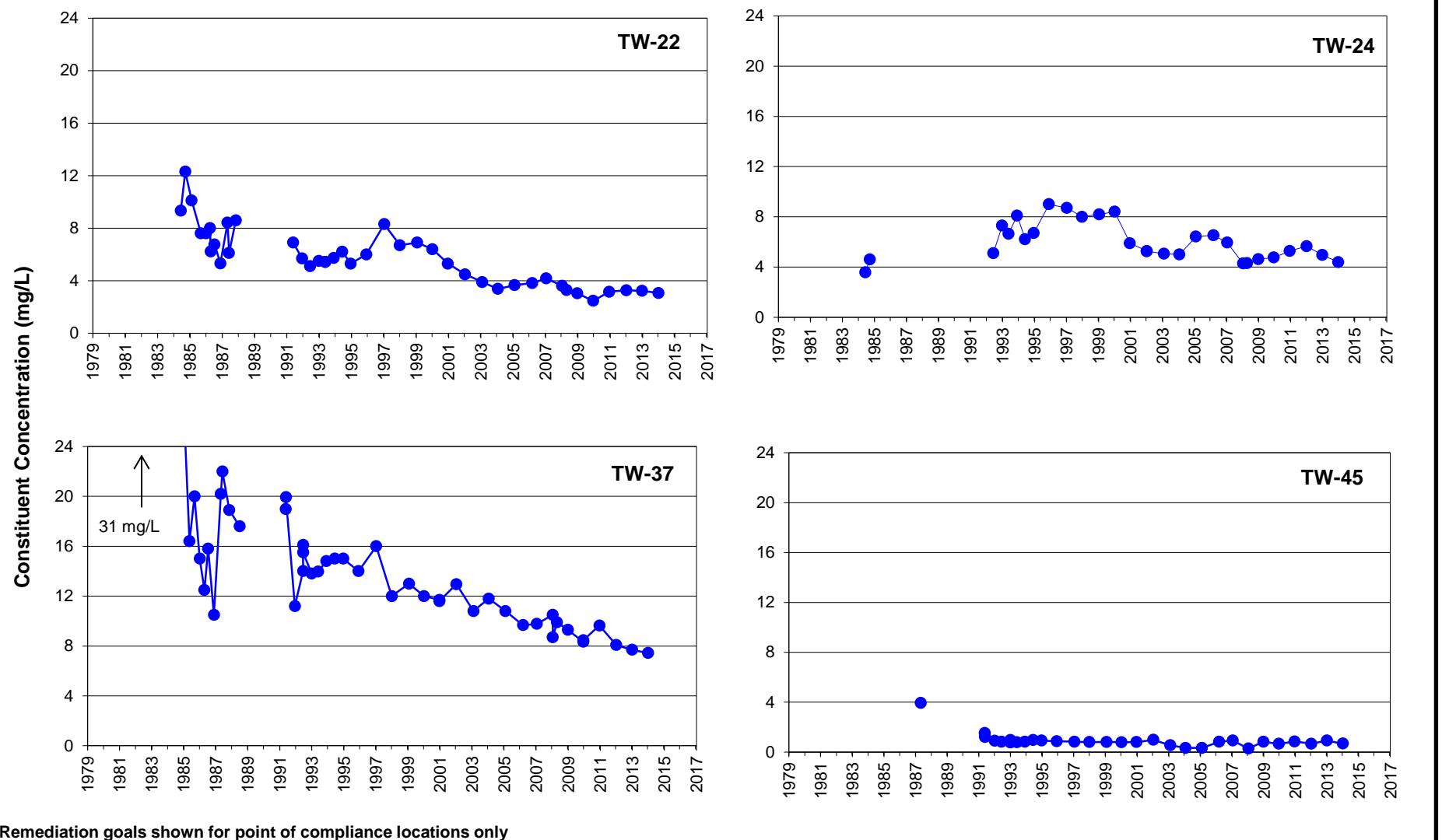
- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE B-10

FLUORIDE IN NW POND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



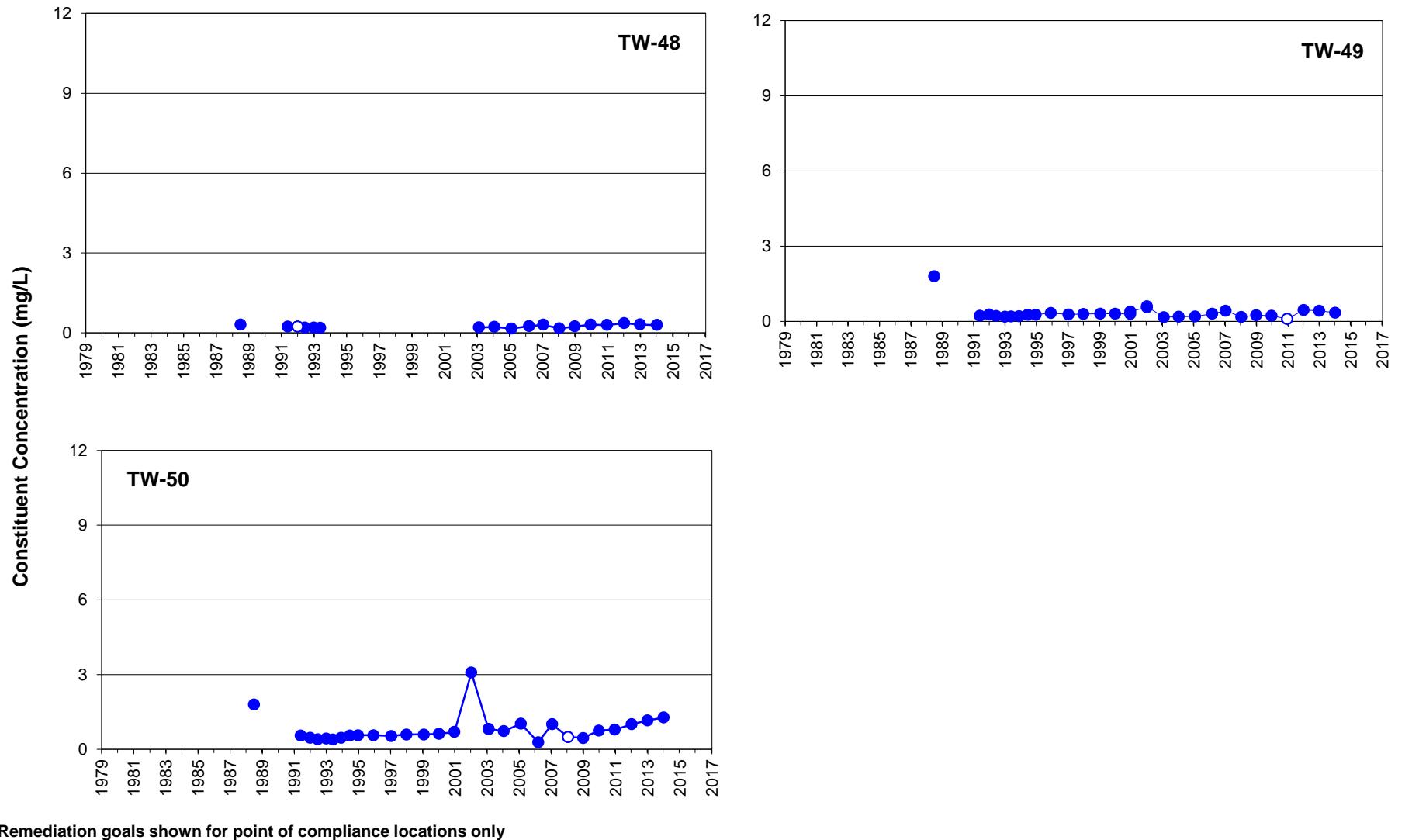
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects

FIGURE B-11
FLUORIDE IN OLD UNDERFLOW
SOLIDS POND AREA WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



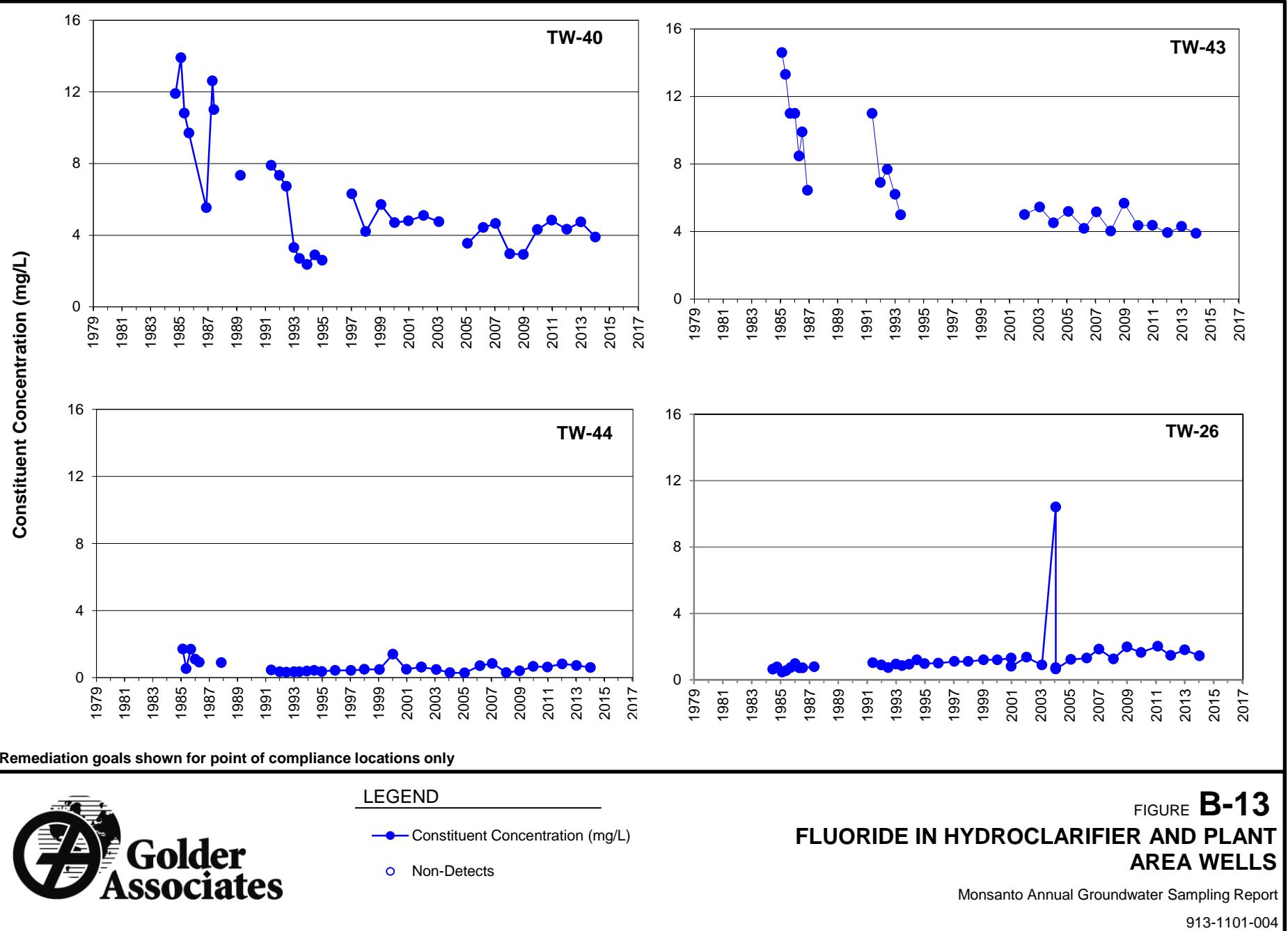
LEGEND

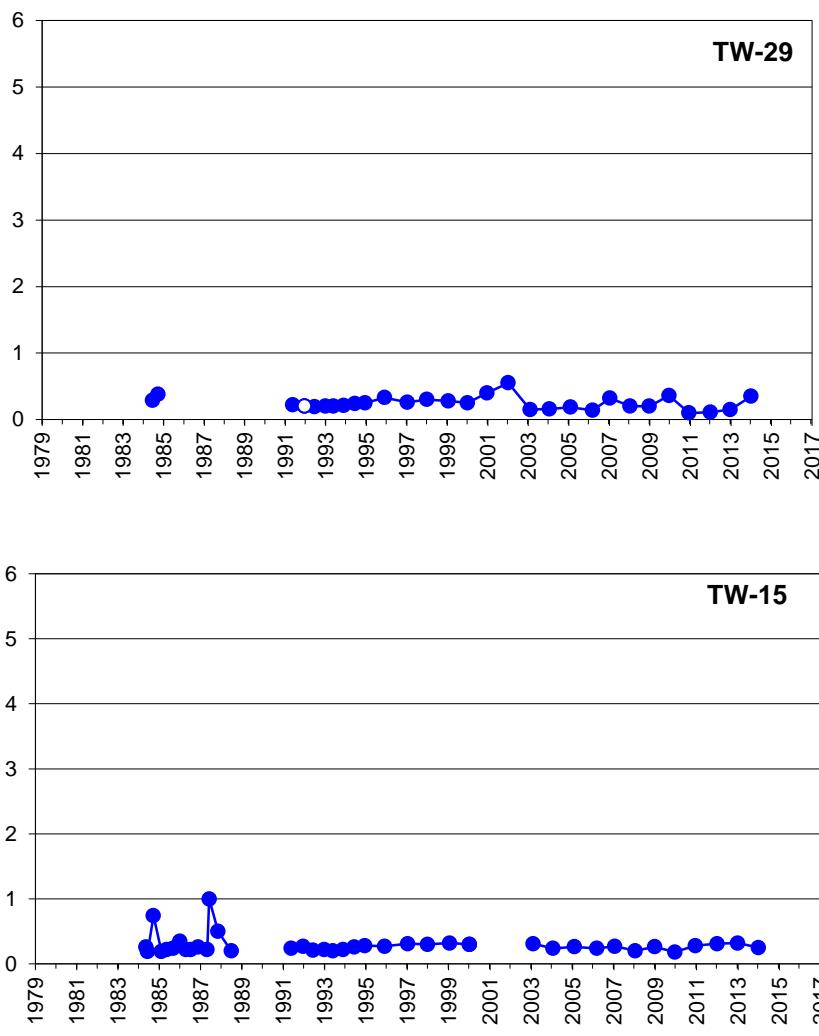
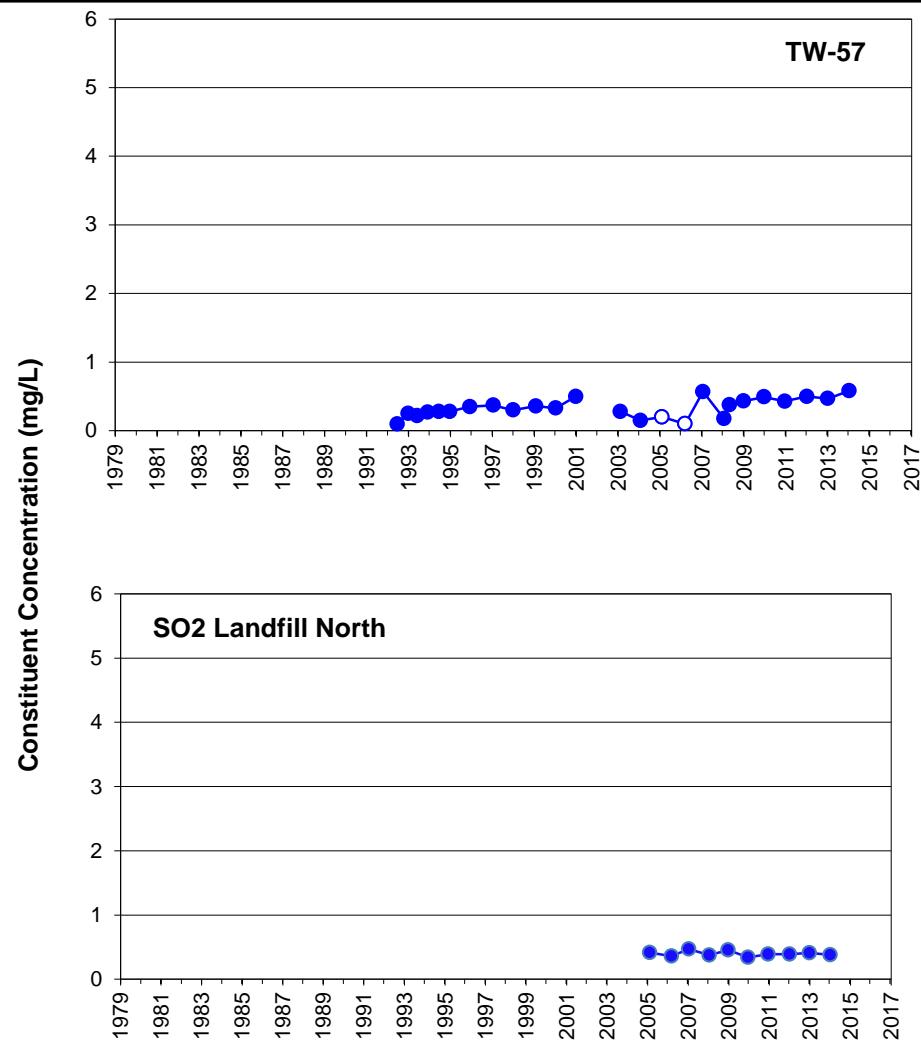
- Constituent Concentration (mg/L)
- Non-Detects

FIGURE B-12
FLUORIDE IN UNDERFLOW SOLIDS PILES
AREA WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



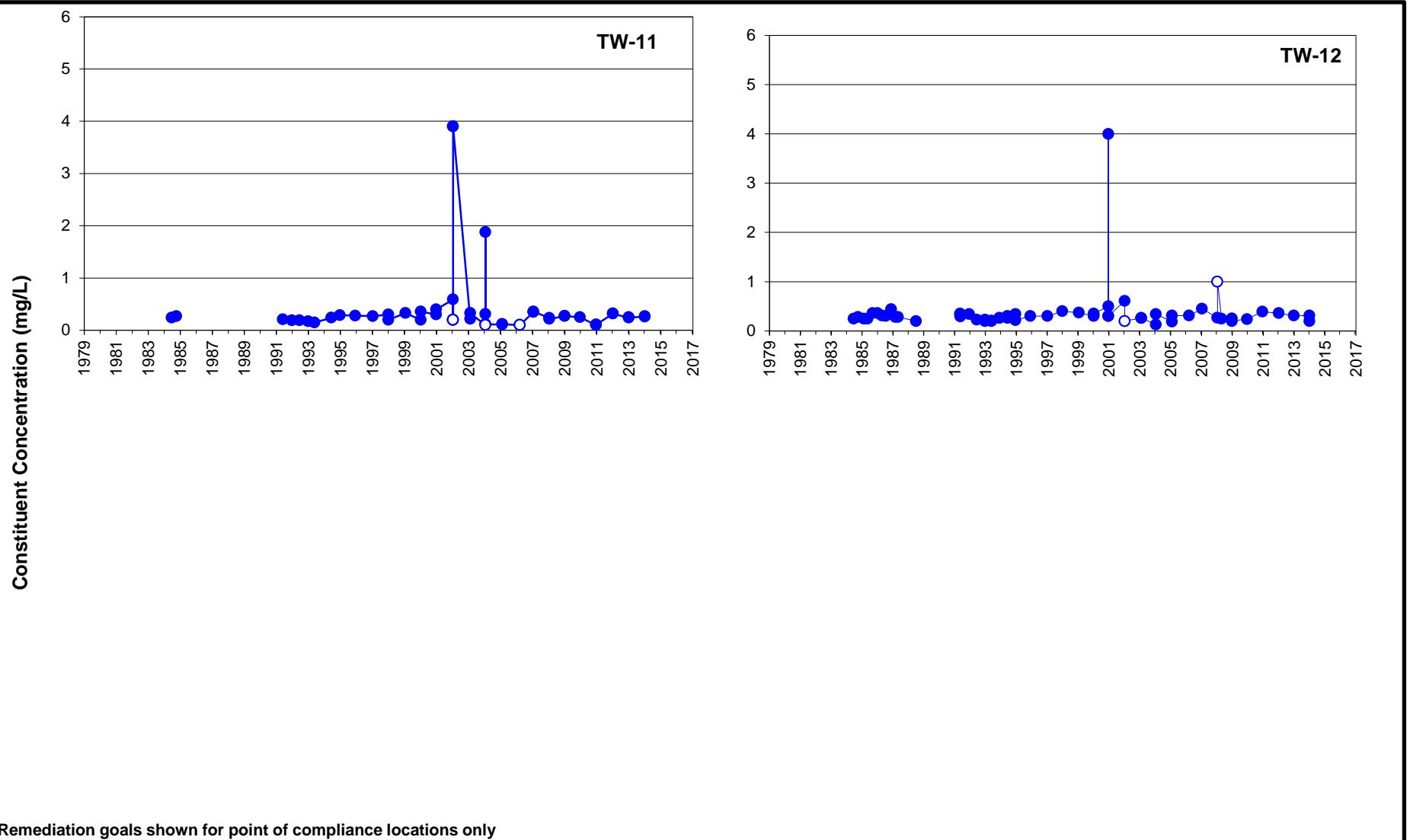
- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE B-14

FLUORIDE IN BACKGROUND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

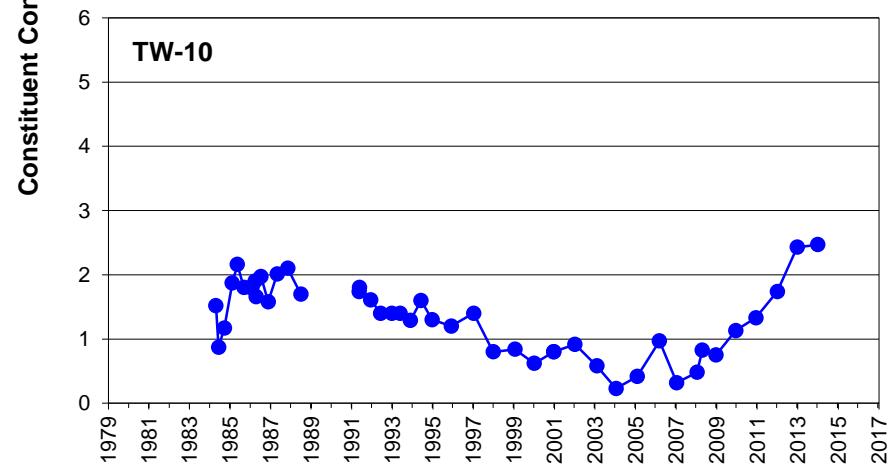
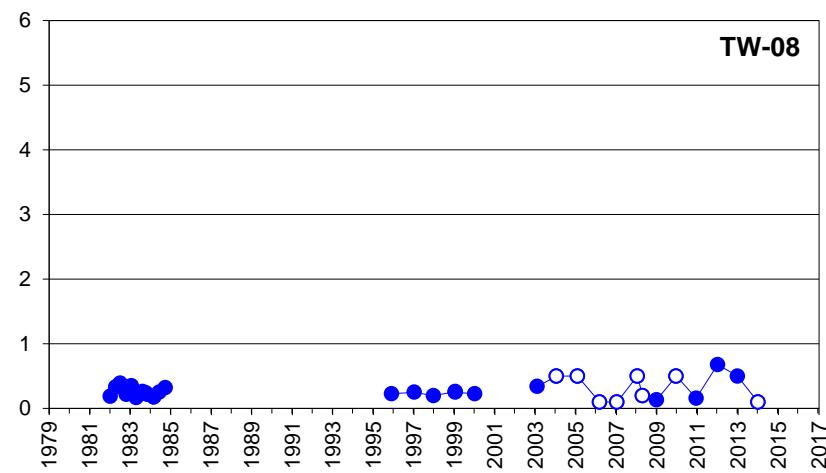
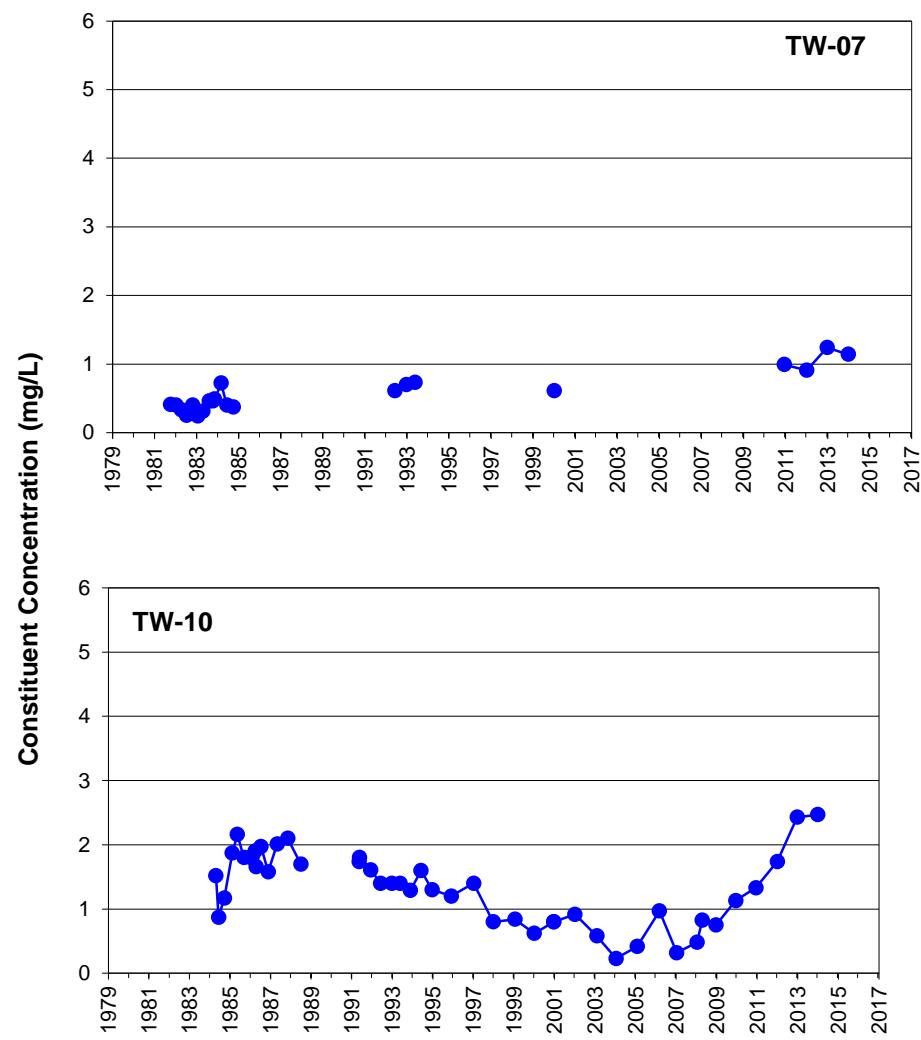
- Constituent Concentration (mg/L)
- Non-Detects

FIGURE B-15

FLUORIDE IN SOUTHEAST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

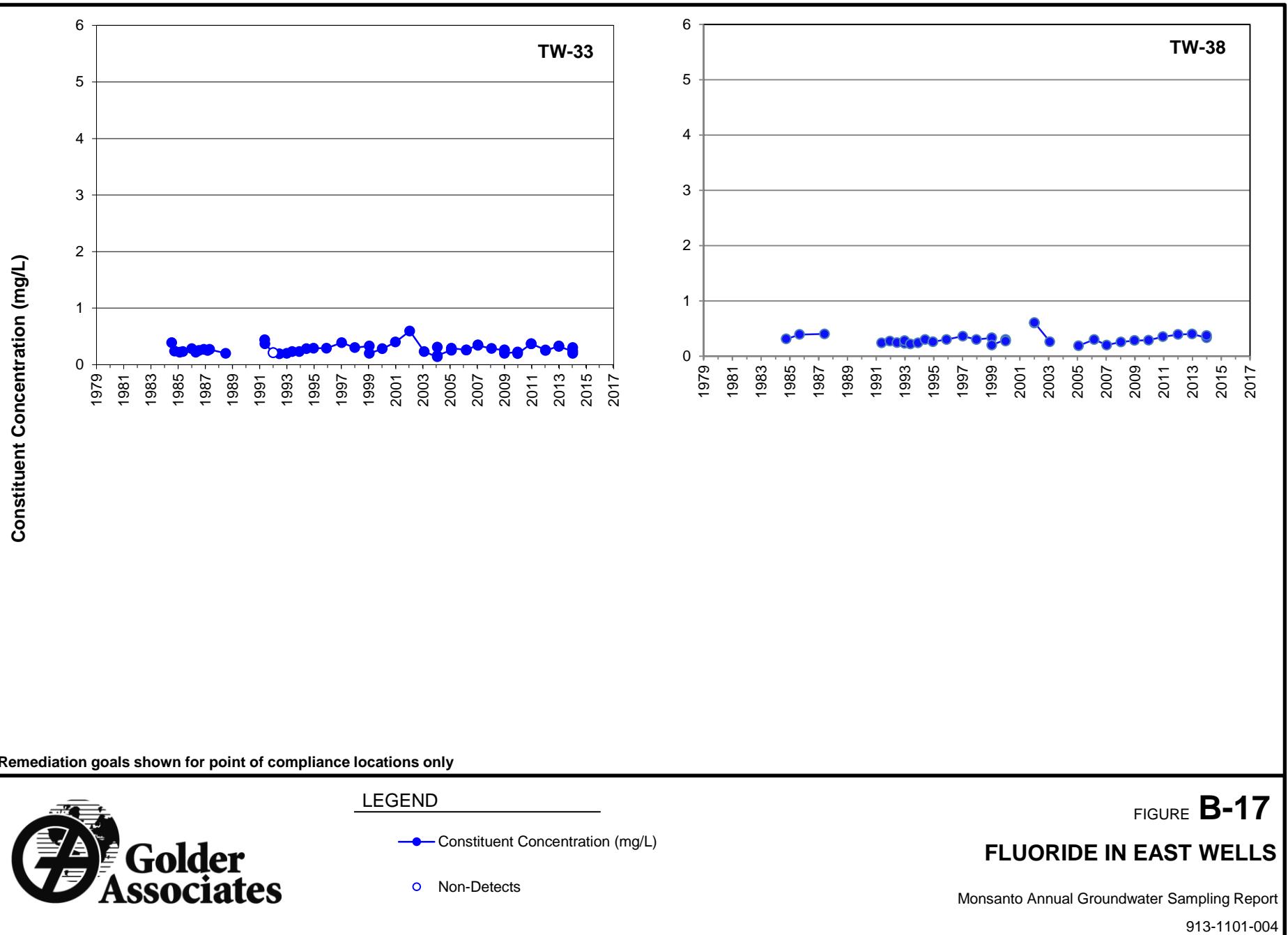
- Constituent Concentration (mg/L)
- Non-Detects

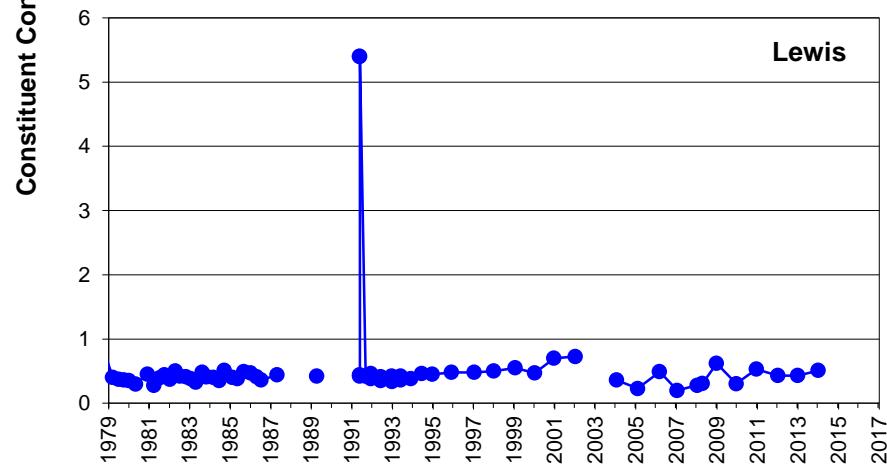
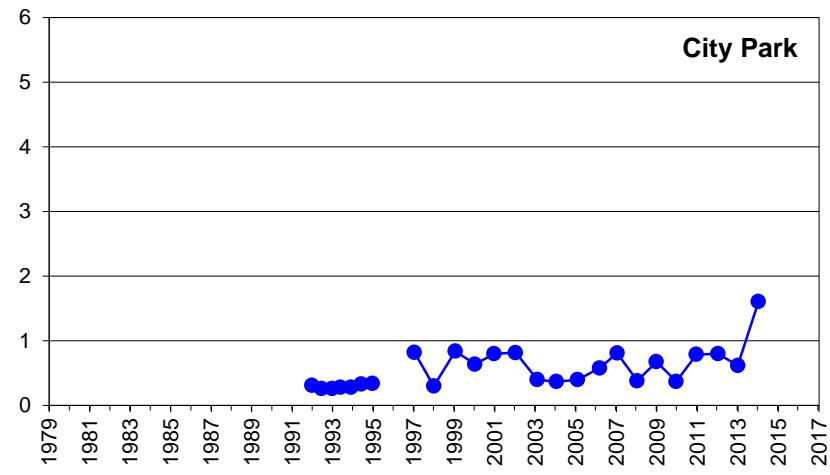
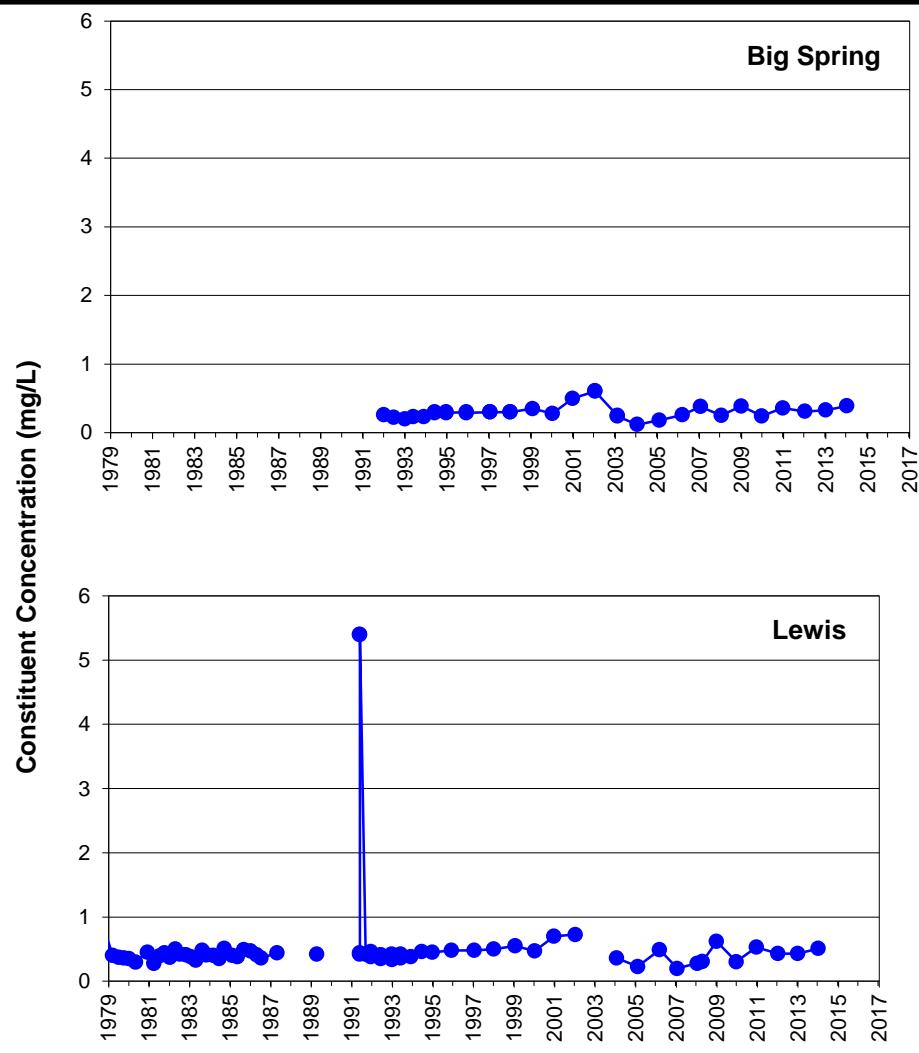
FIGURE B-16

FLUORIDE IN SOUTHWEST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



LEGEND

● Constituent Concentration (mg/L) ○ Non-Detects

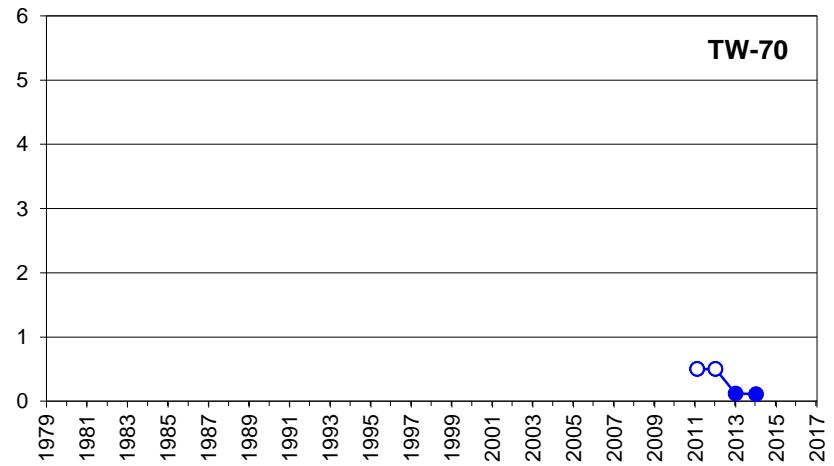
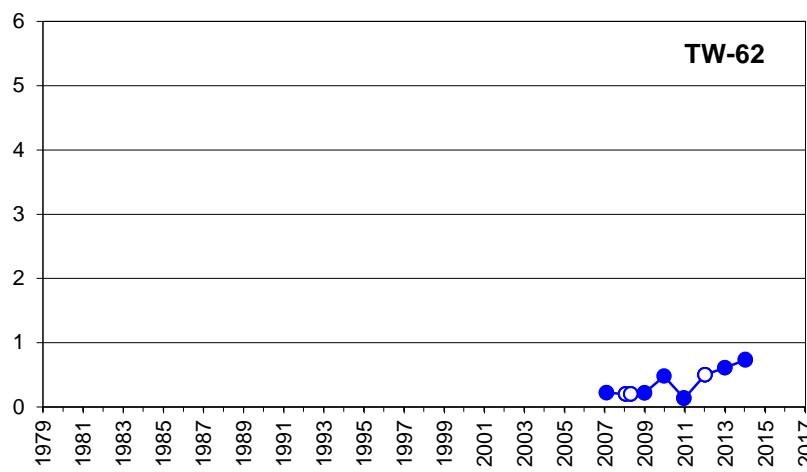
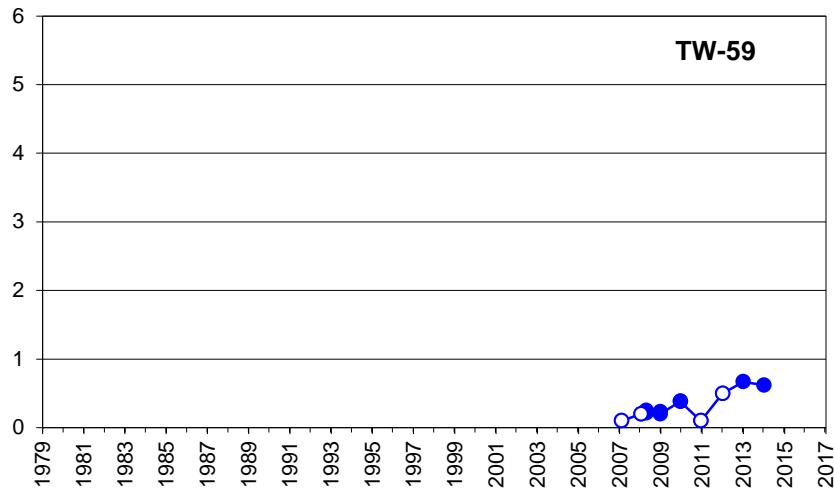
FIGURE B-18

FLUORIDE IN OFFSITE WELLS AND SPRINGS

Monsanto Annual Groundwater Sampling Report

913-1101-004

Constituent Concentration (mg/L)



Remediation goals shown for point of compliance locations only



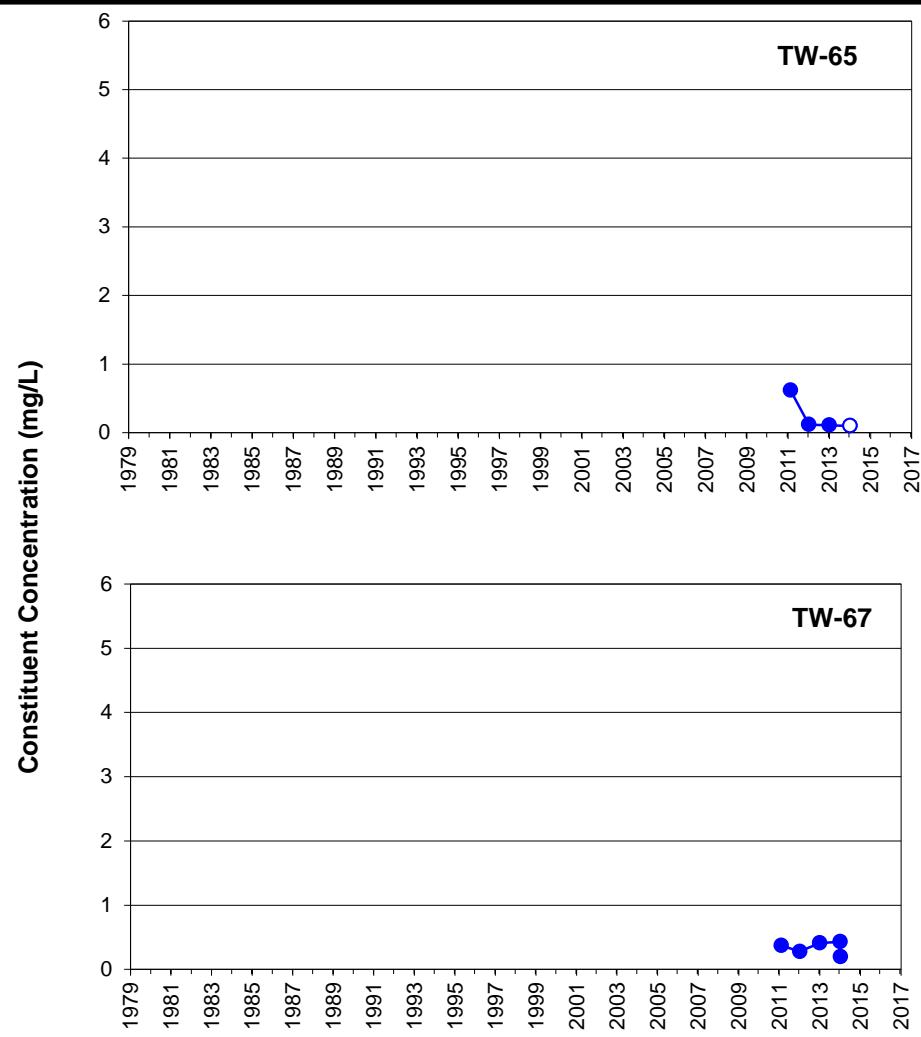
LEGEND

- Constituent Concentration (mg/L)
- non-detects

FIGURE B-19
FLUORIDE IN UBZ-2 WELLS SOUTH OF SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



- LEGEND
- Constituent Concentration (mg/L)
 - non-detects

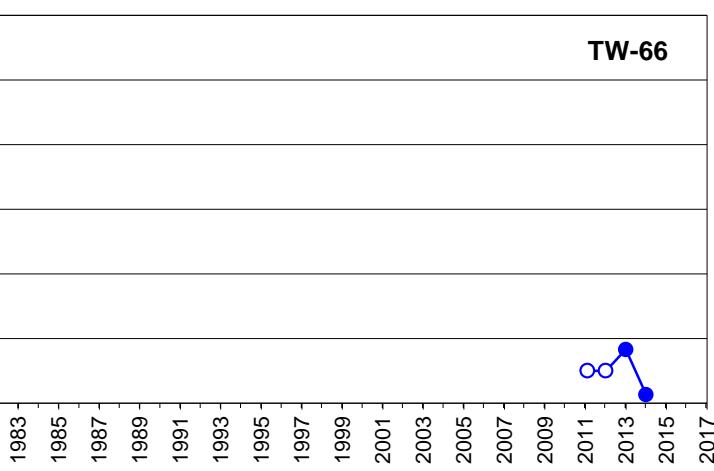
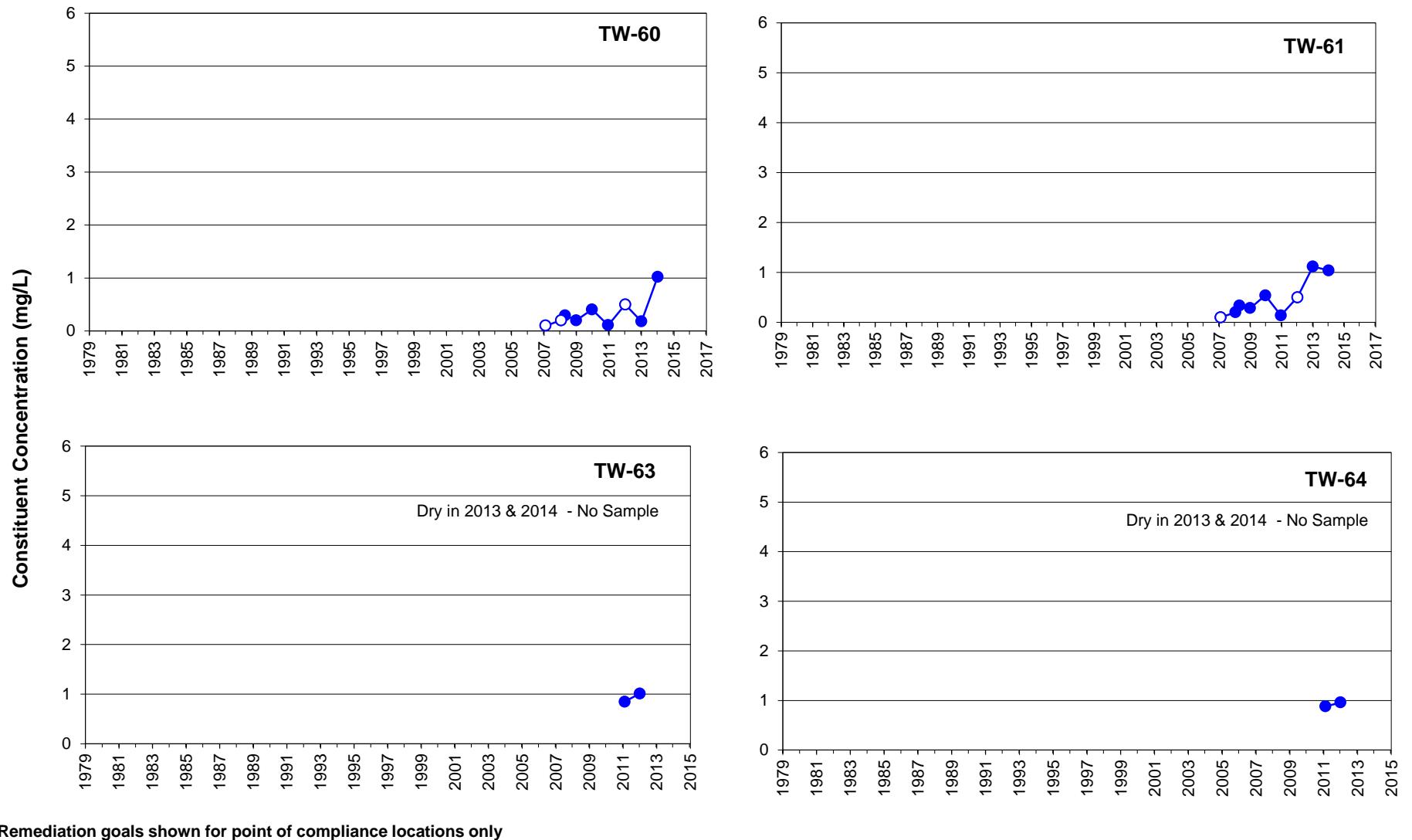


FIGURE B-20

FLUORIDE IN UBZ-2 WELLS AT PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

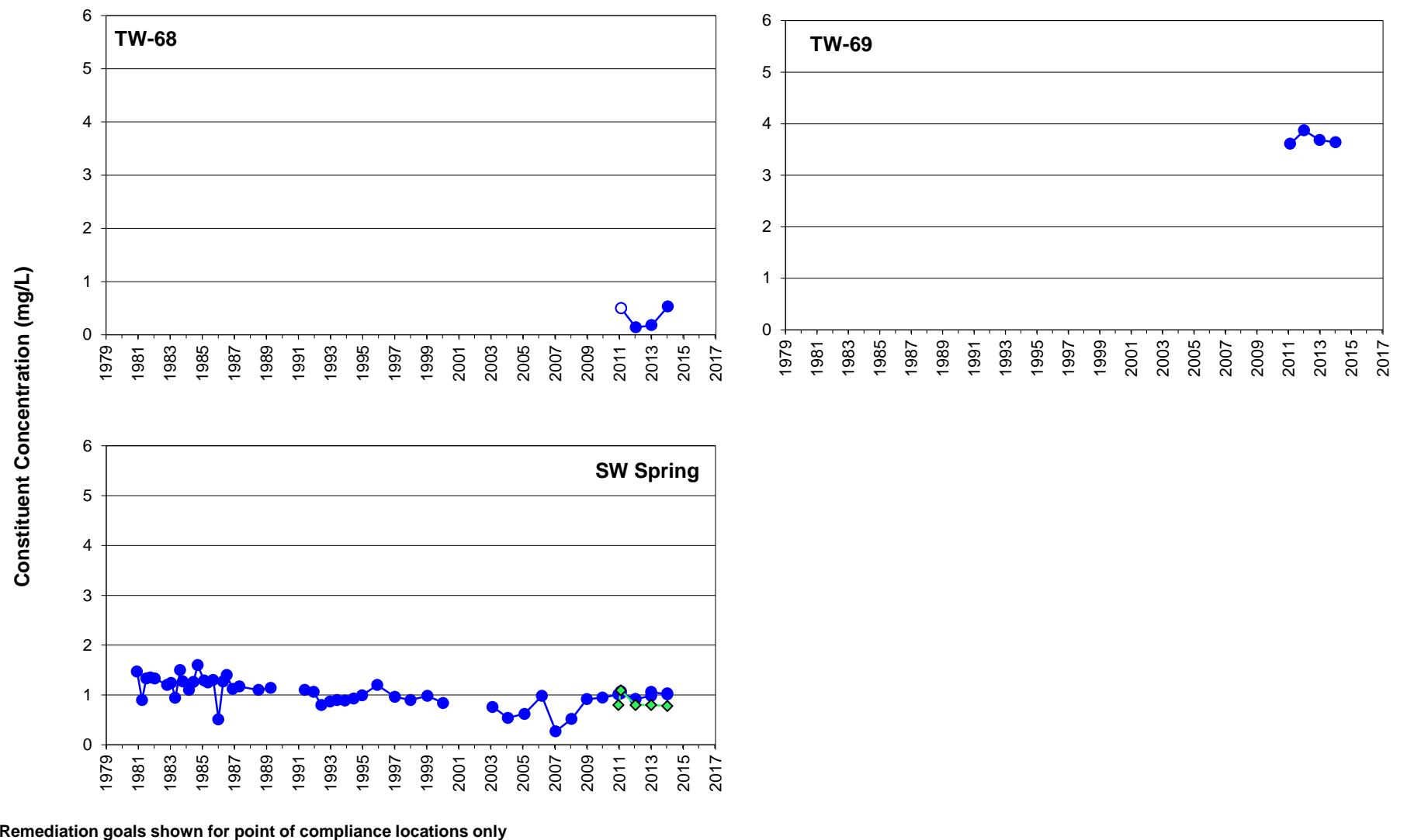
- Constituent Concentration (mg/L)
- Non-detects

FIGURE B-21

FLUORIDE IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

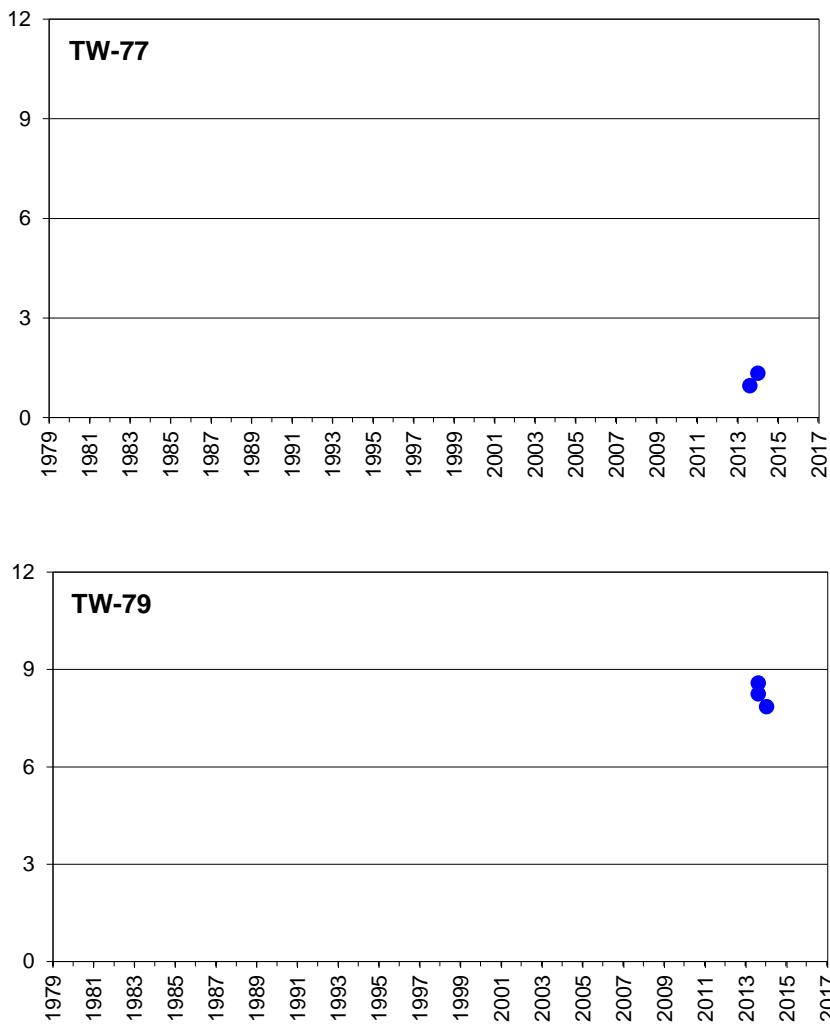
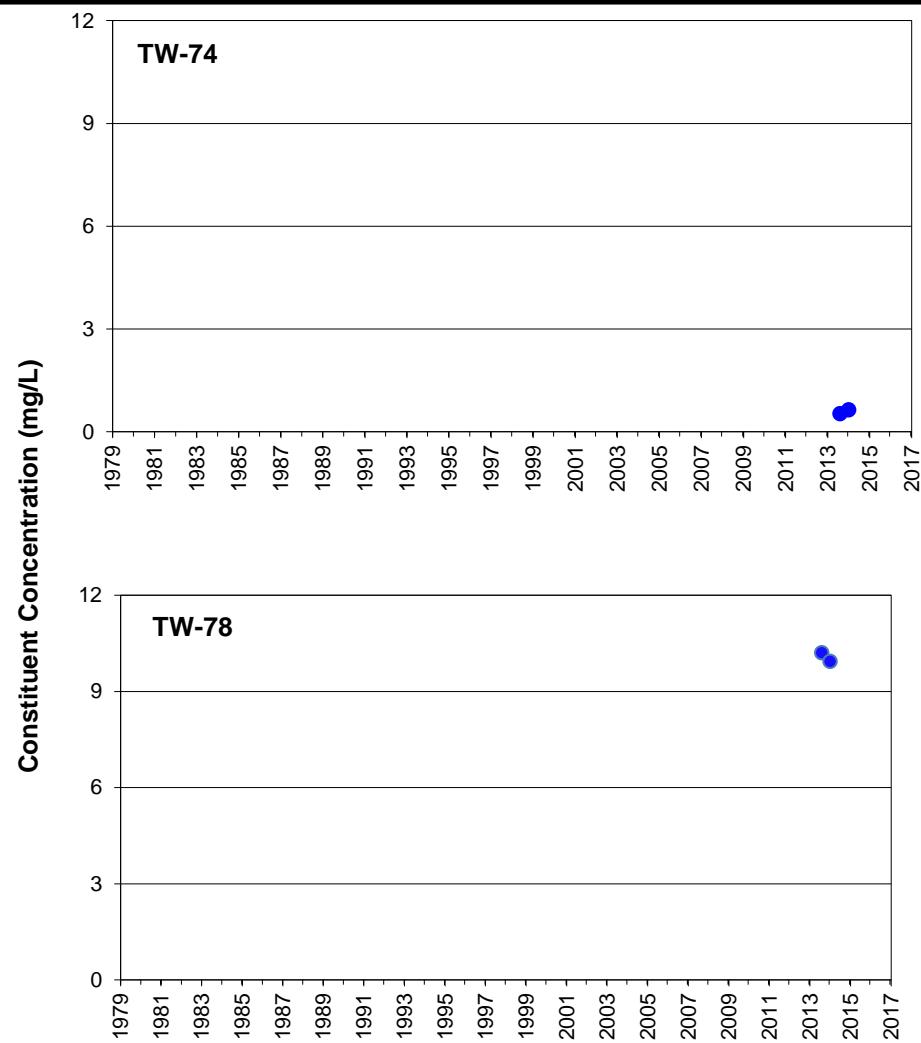
913-1101-004



- LEGEND
- Constituent Concentration (mg/L)
 - Non-detects
 - ◆ SW Spring above confluence with Soda Creek

FIGURE B-22
FLUORIDE IN UBZ-1 WELLS AND
SPRINGS WEST OF THE PLANT

Monsanto Annual Groundwater Sampling Report
913-1101-004



Remediation goals shown for point of compliance locations only

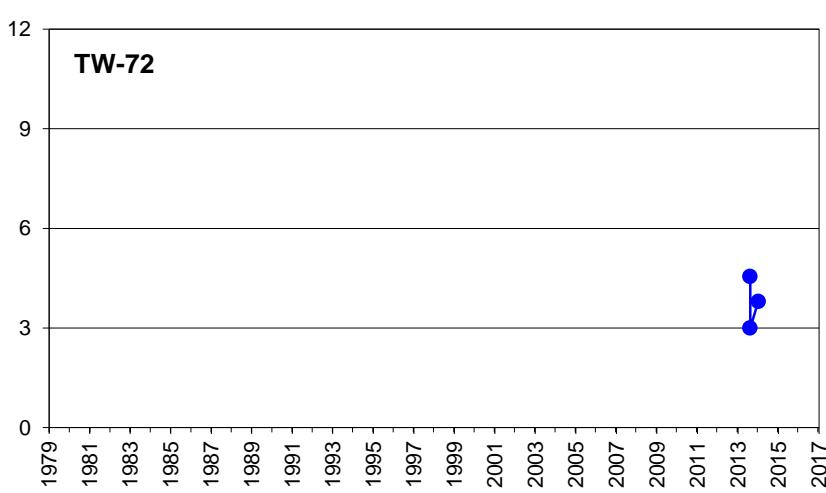
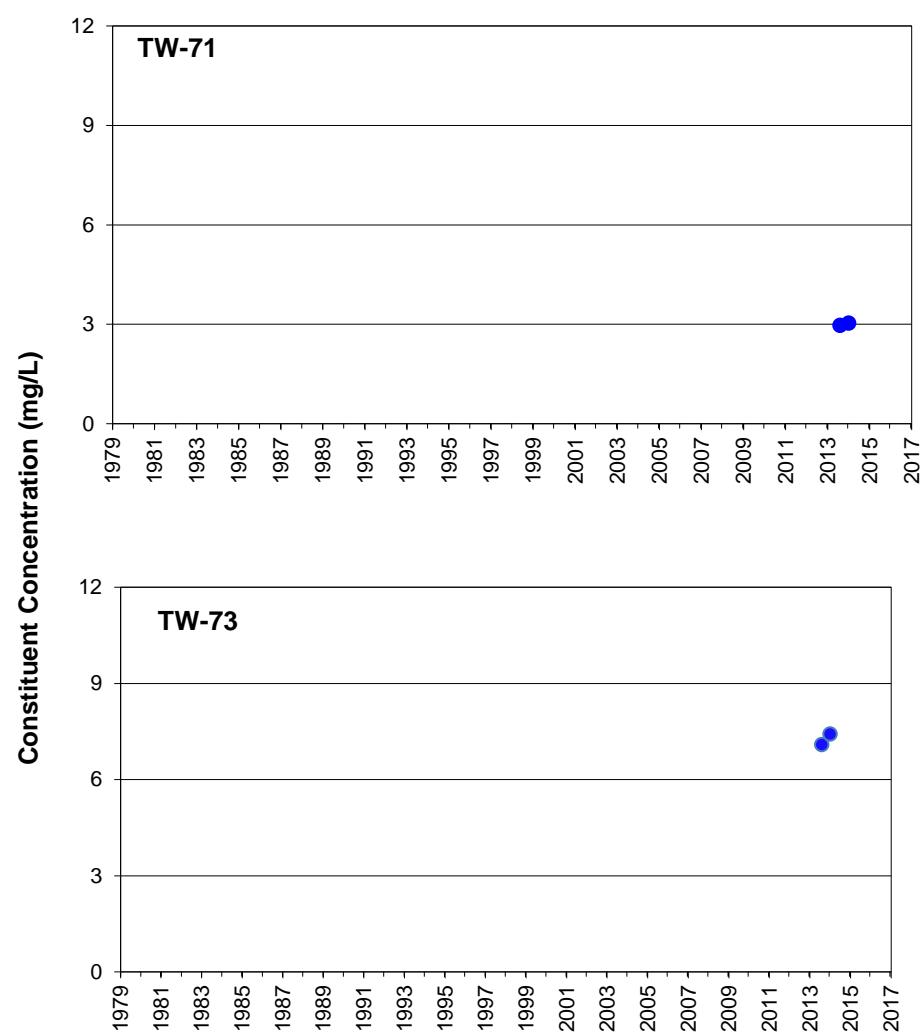


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE B-23
FLUORIDE IN UBZ-4 TAILINGS POND
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

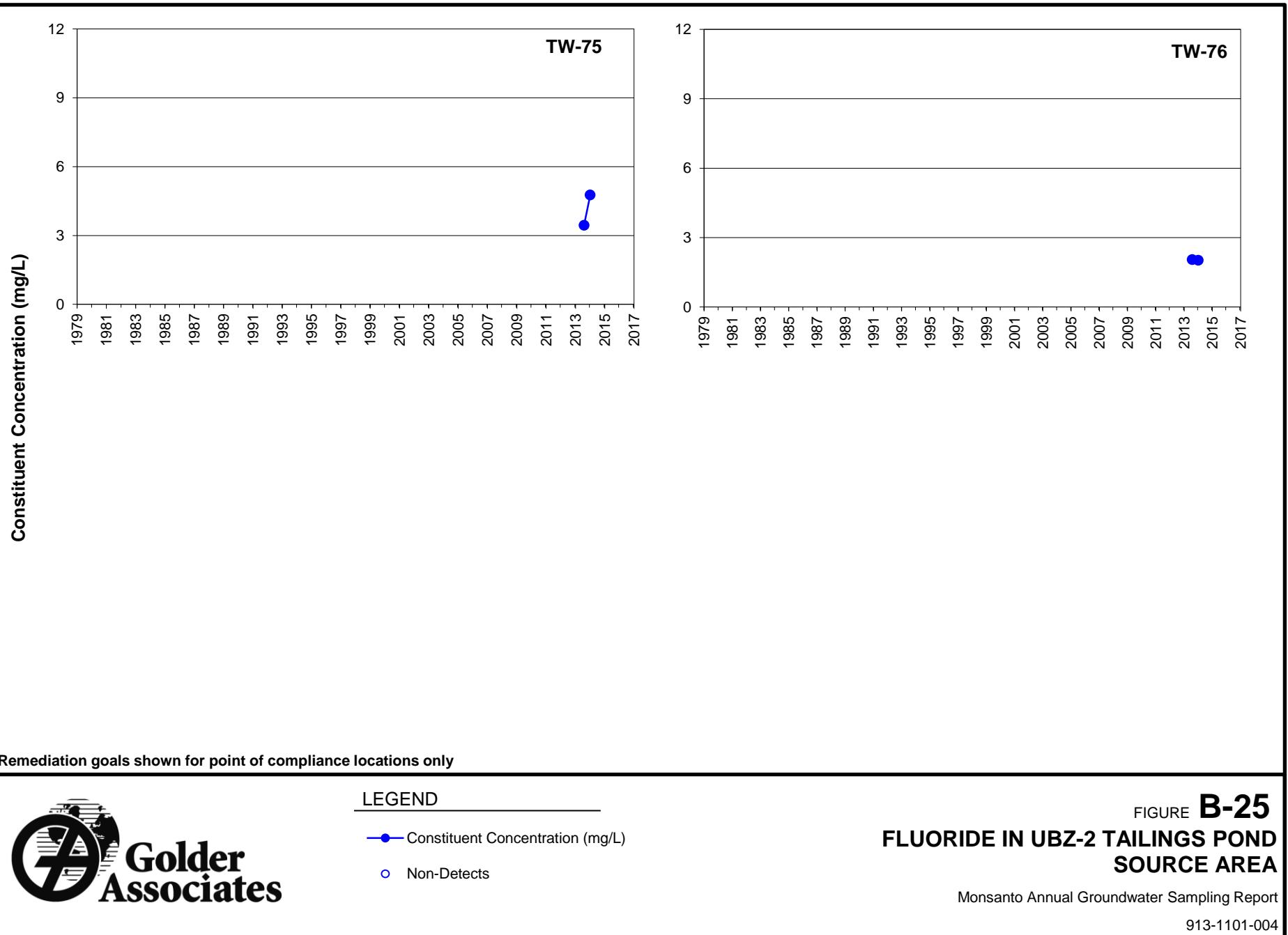


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

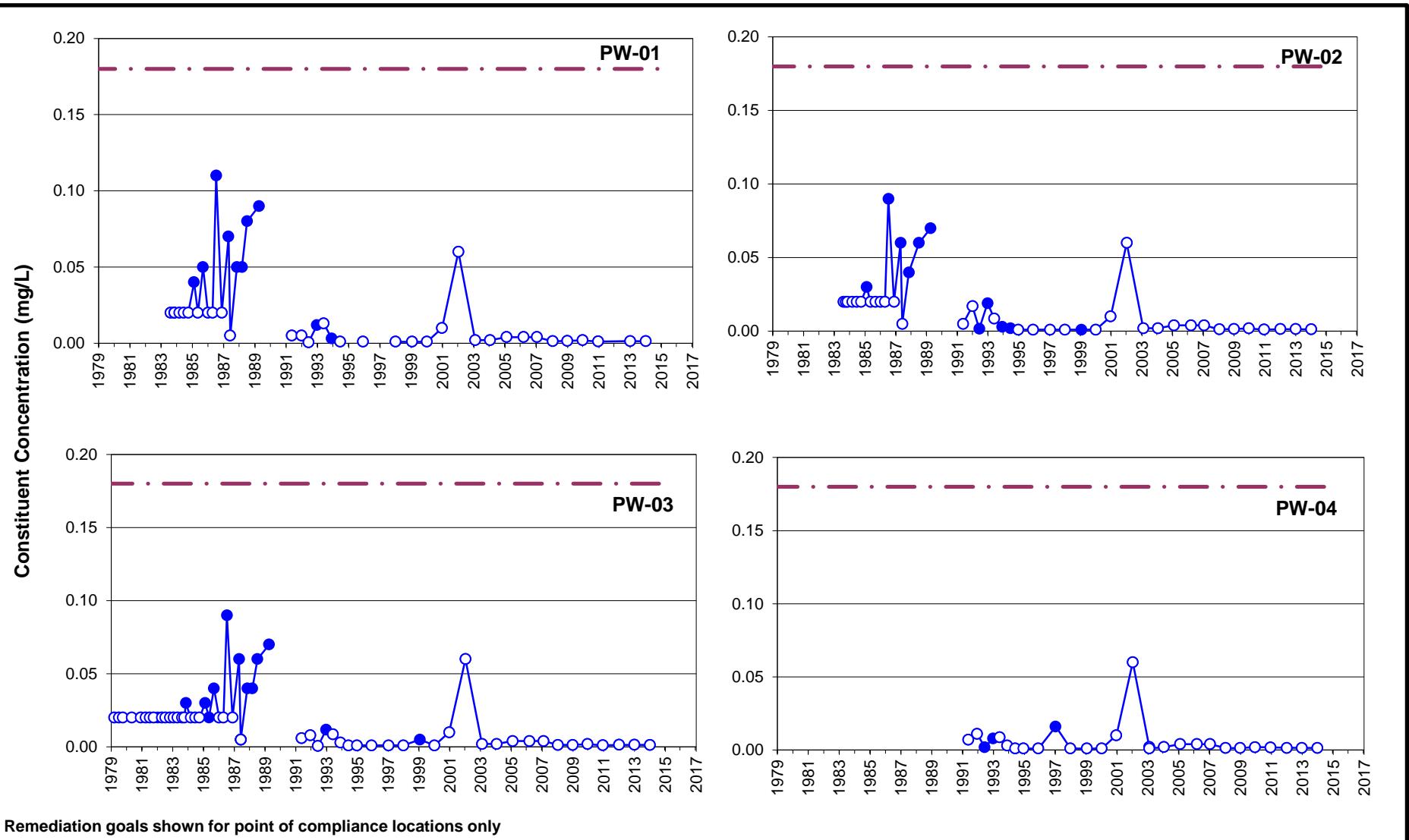
FIGURE B-24
FLUORIDE IN UBZ-2 OLD UFS PONDS SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



APPENDIX C
TIME-HISTORY GRAPHS FOR MANGANESE



Remediation goals shown for point of compliance locations only



LEGEND

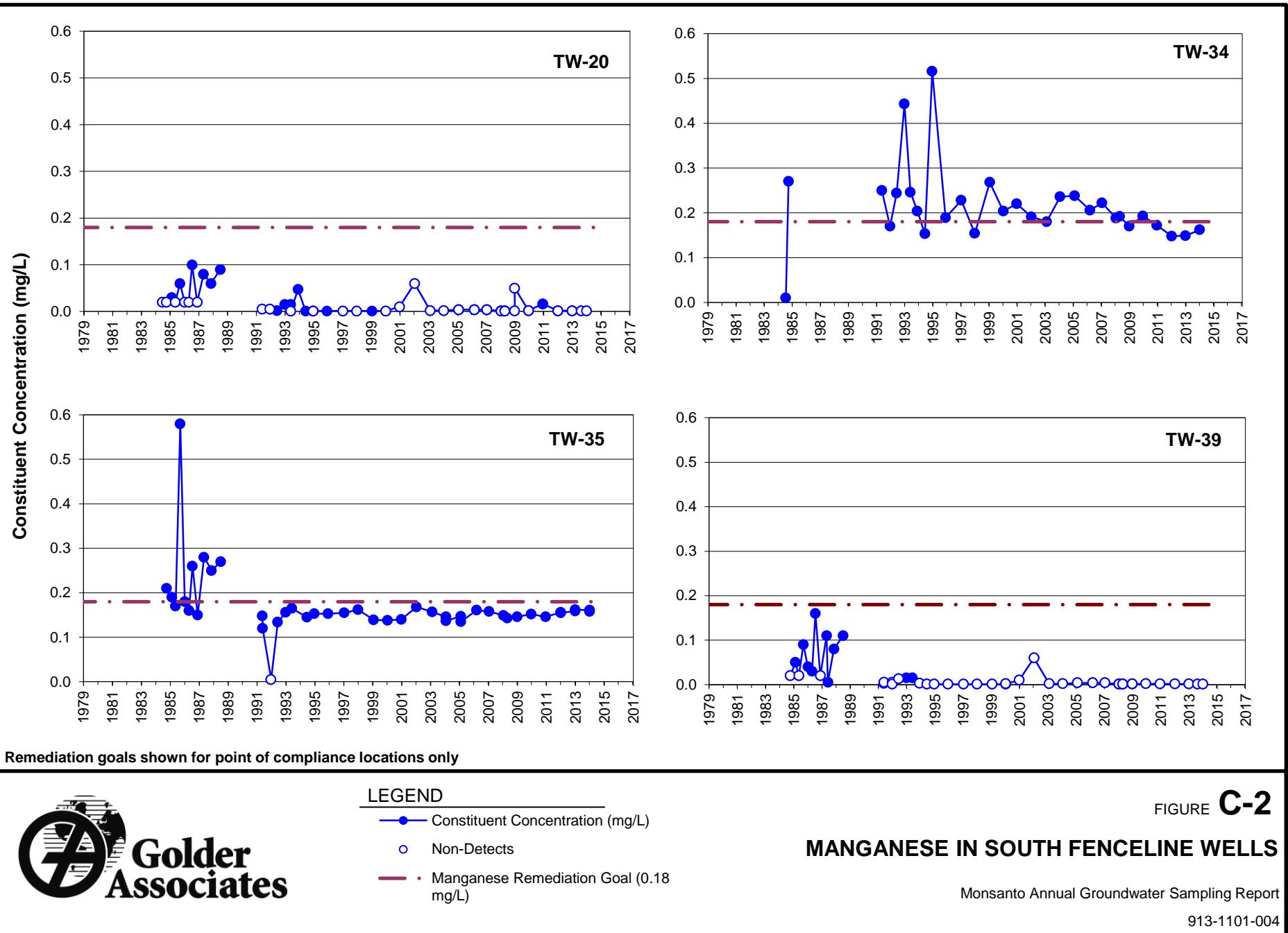
- Constituent Concentration (mg/L)
- Non-Detects
- Manganese Remediation Goal (0.18 mg/L)

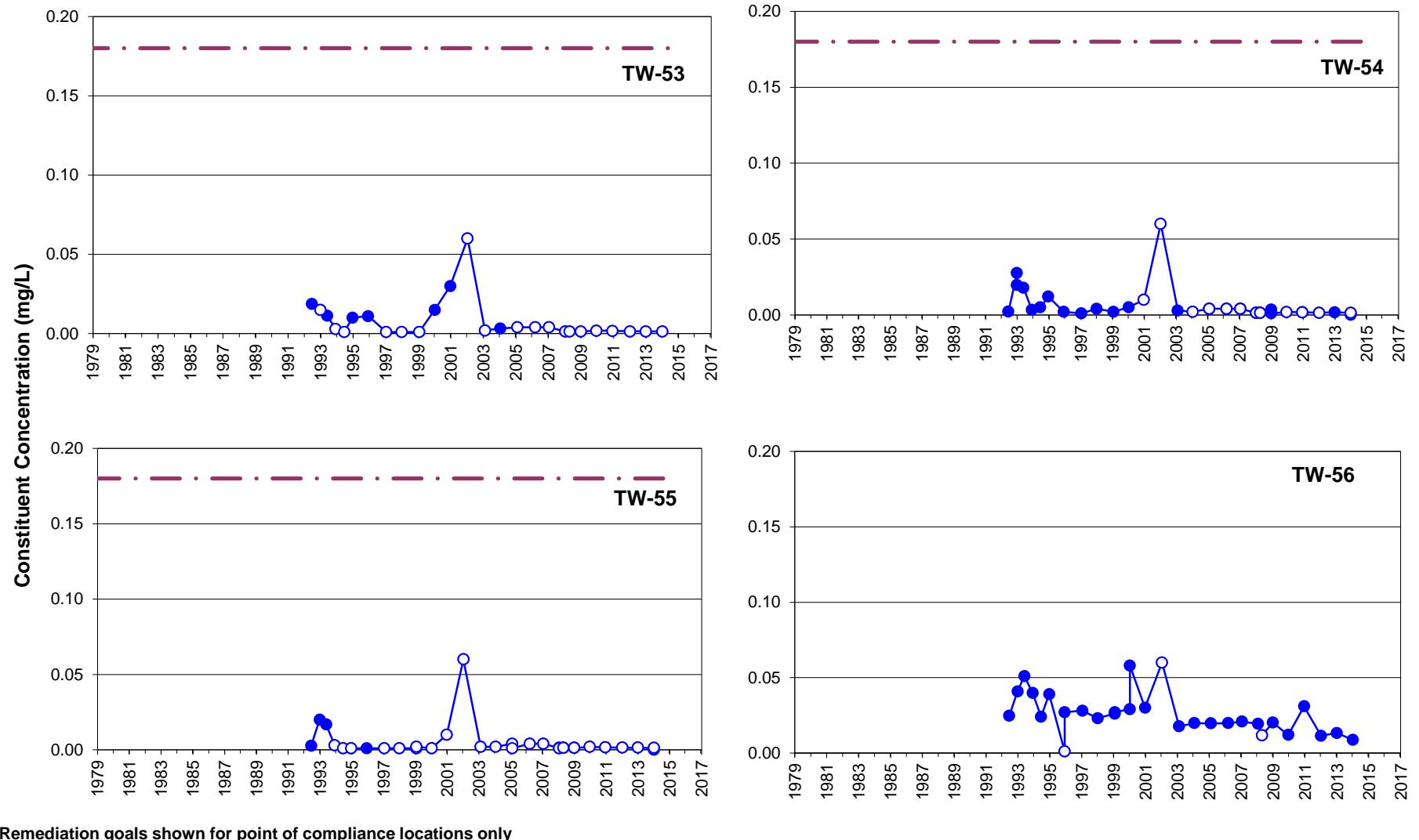
FIGURE C-1

MANGANESE IN PRODUCTION WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



LEGEND

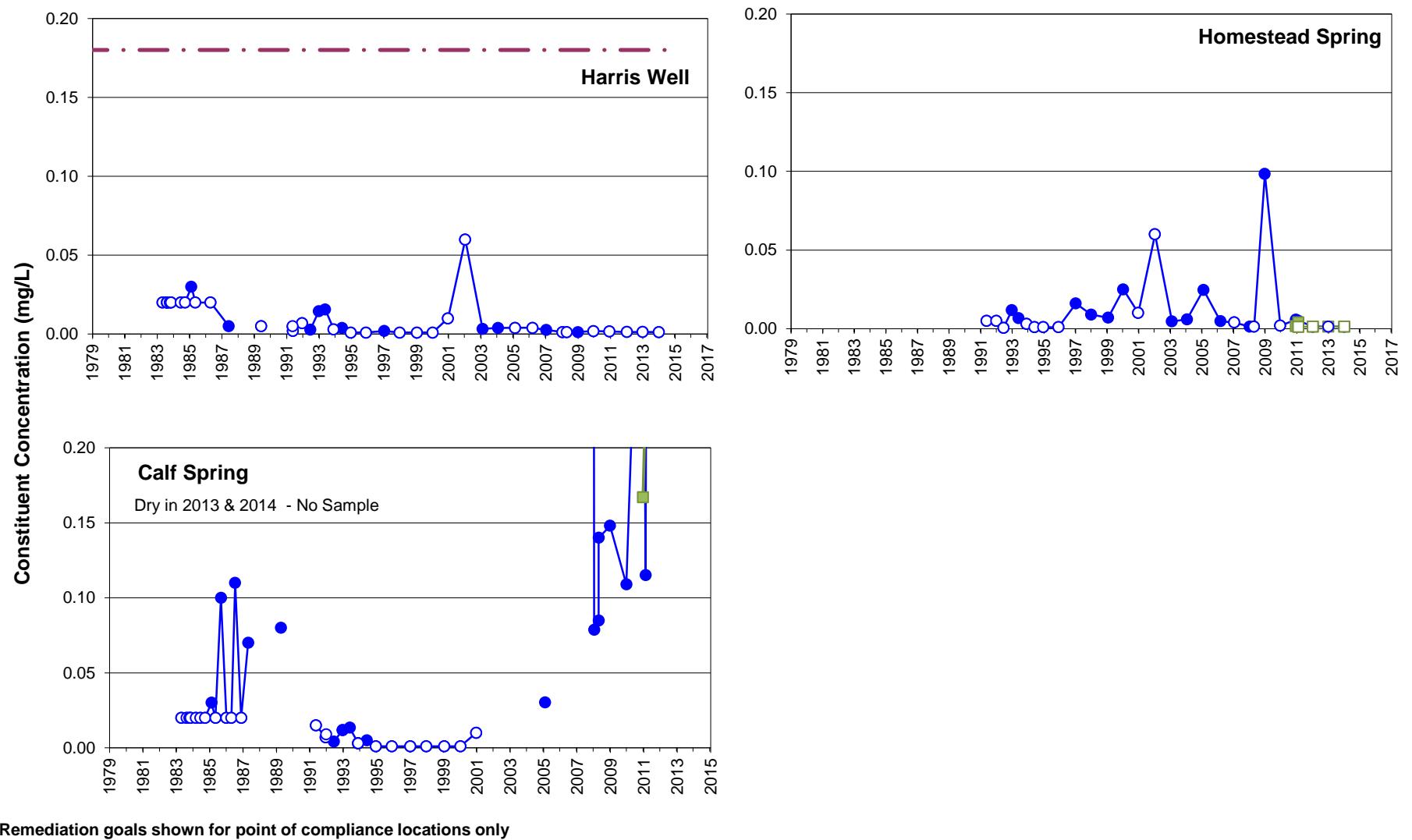
- Constituent Concentration (mg/L)
- Non-Detects
- Manganese Remediation Goal (0.18 mg/L)

FIGURE C-3

MANGANESE IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004

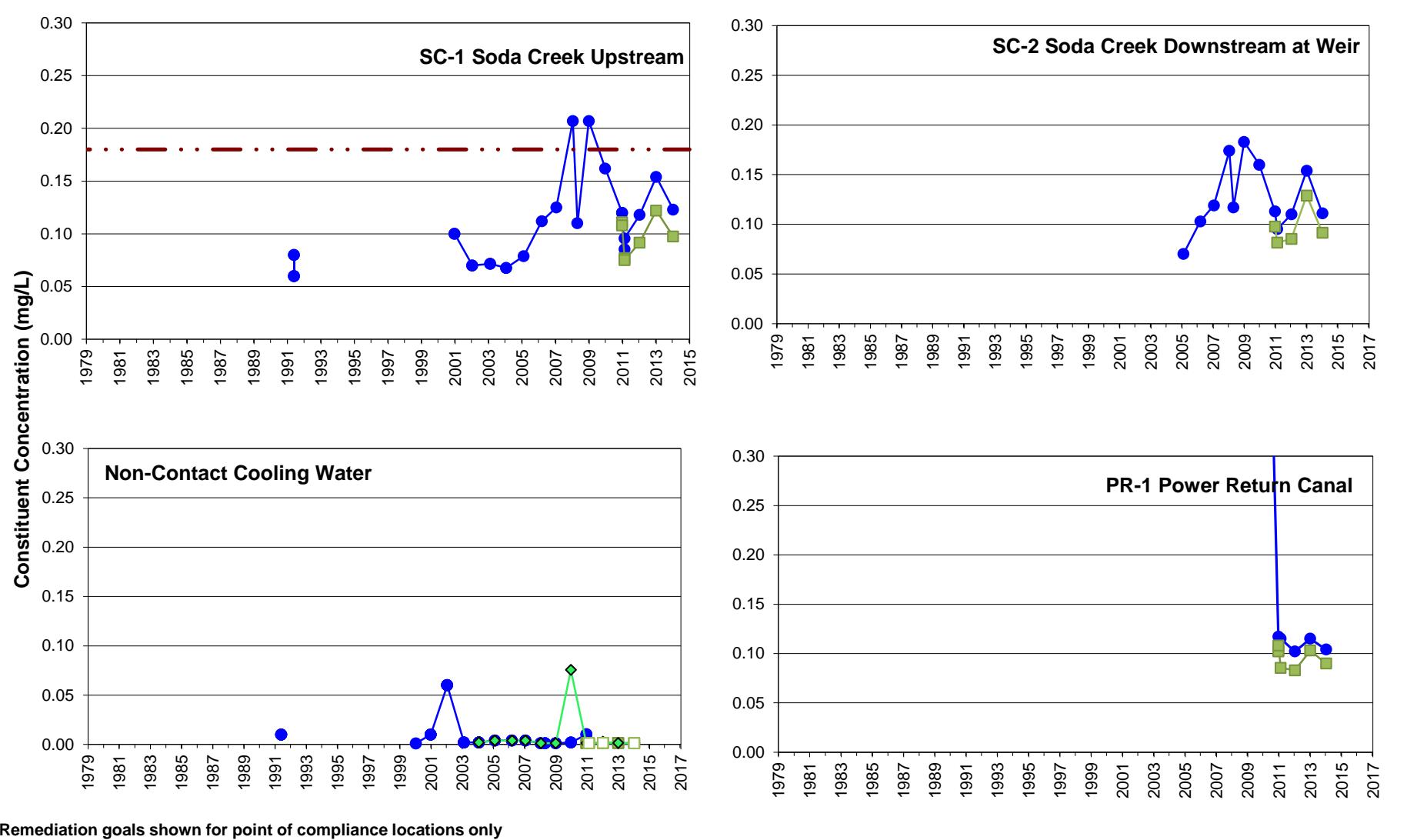


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Dissolved Constituent Concentration (mg/L)
 - Dissolved Non-Detect (mg/L)
 - Manganese Remediation Goal (0.18 mg/L)

FIGURE C-4
MANGANESE IN HARRIS WELL AND SPRINGS SOUTH OF PLANT

Monsanto Annual Groundwater Sampling Report

913-1101-004

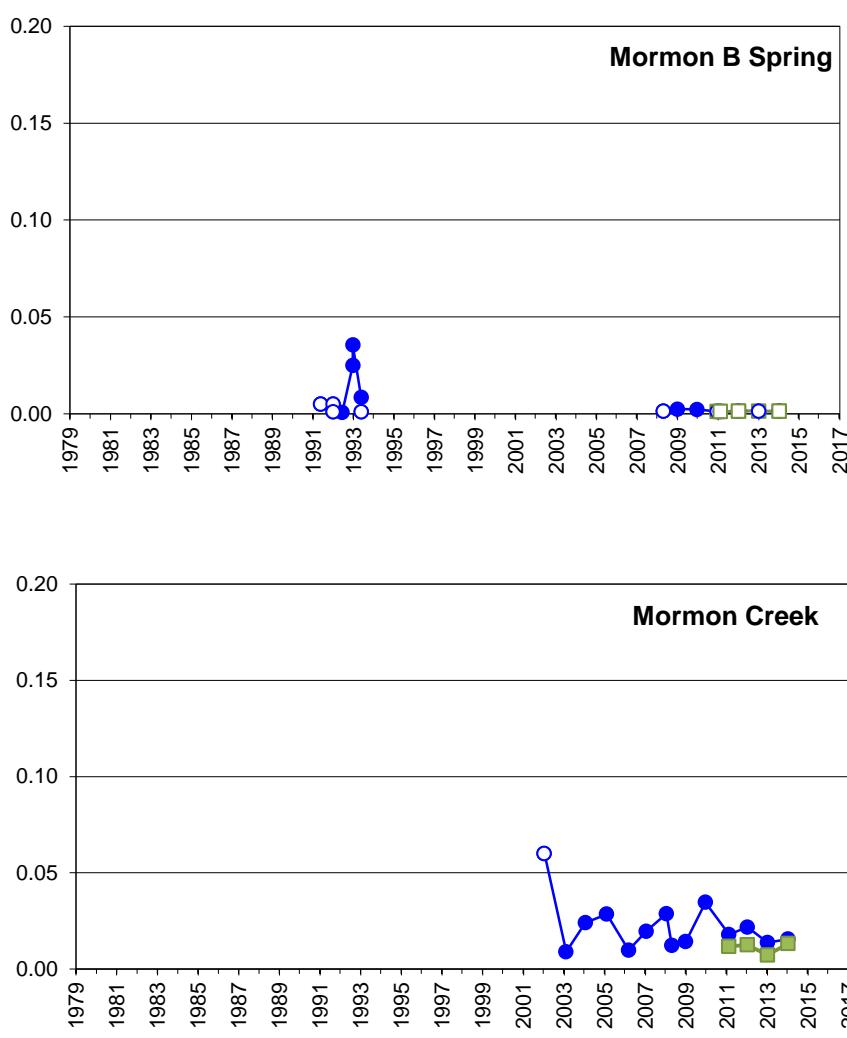
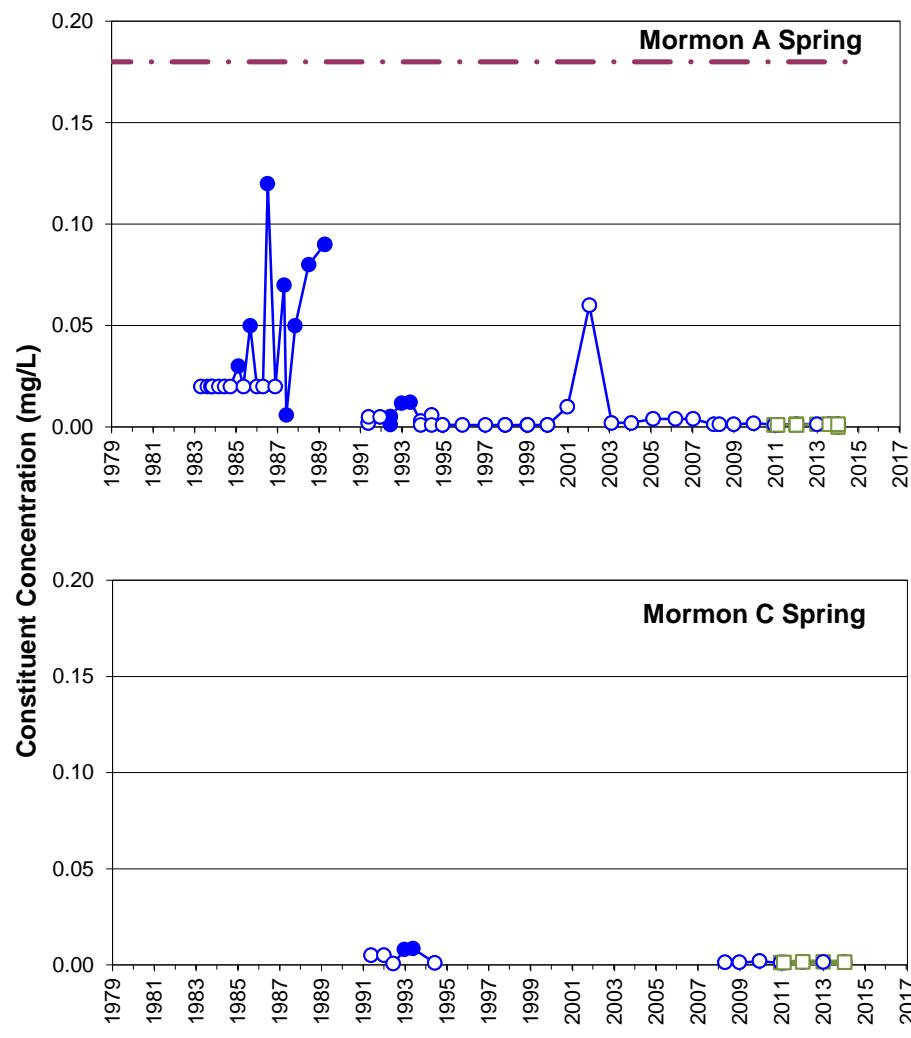


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Dissolved Constituent Concentration (mg/L)
 - Dissolved Non-Detect (mg/L)
 - Manganese Remediation Goal (0.18 mg/L)
 - ◆— Pond Inlet

FIGURE C-5
MANGANESE IN SODA CREEK AND NON-CONTACT COOLING WATER DISCHARGE

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

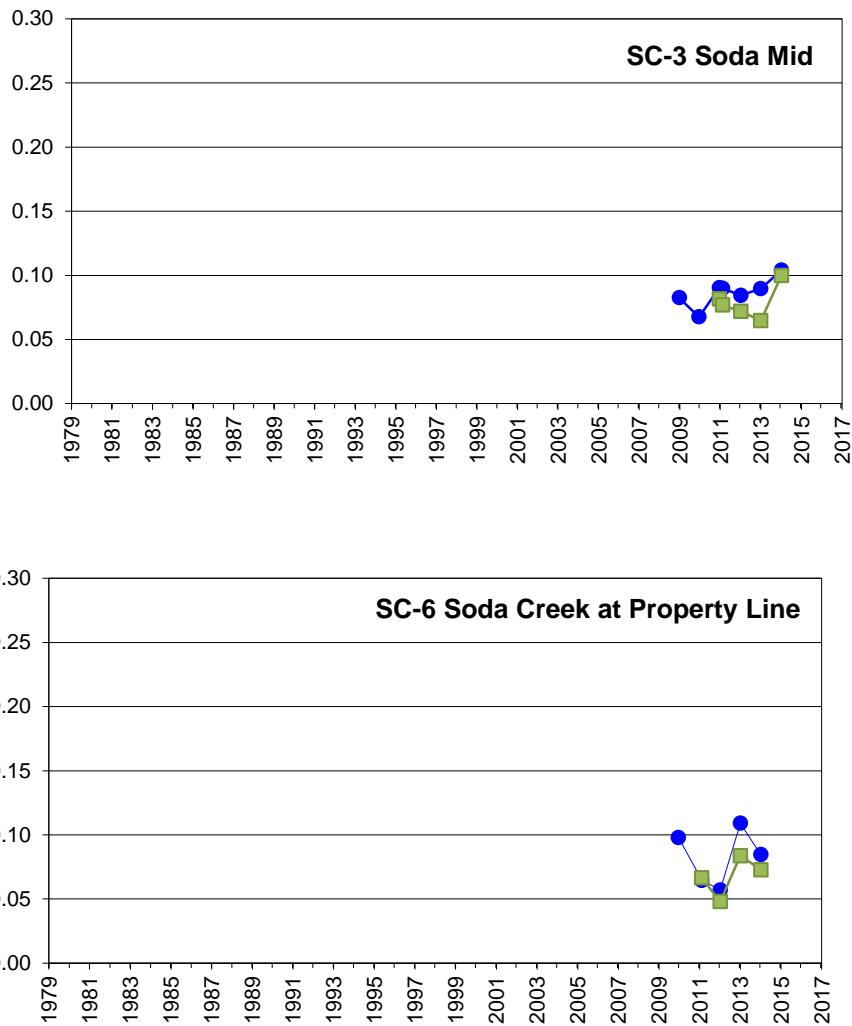
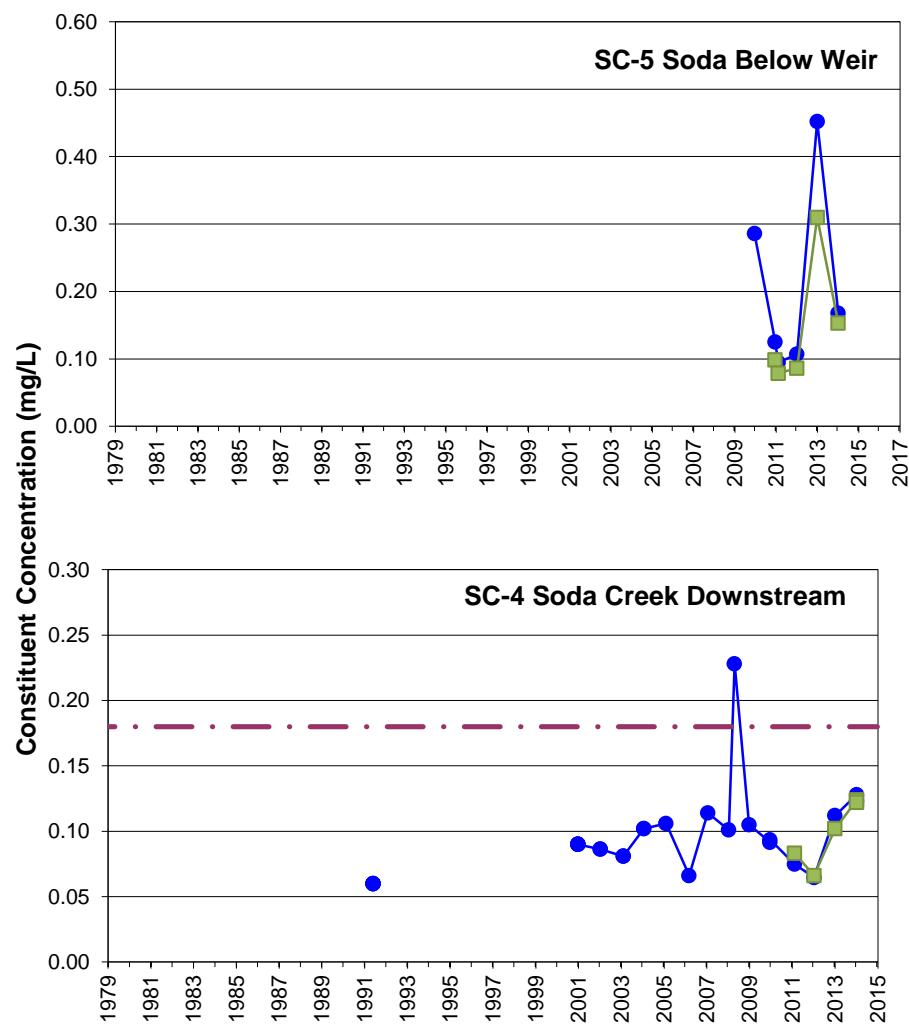


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Dissolved Constituent Concentration (mg/L)
 - Dissolved Non-Detect (mg/L)
 - Manganese Remediation Goal (0.18 mg/L)

FIGURE C-6
MANGANESE IN MORMON A, B, AND C SPRINGS AND MORMON CREEK

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

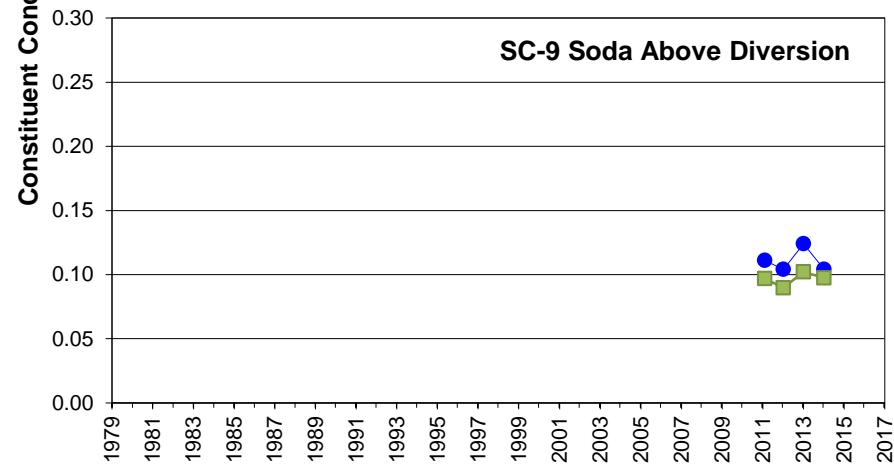
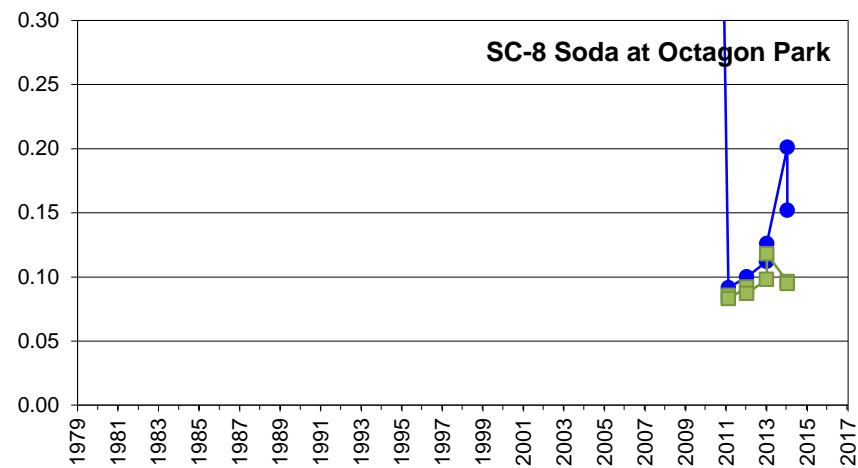
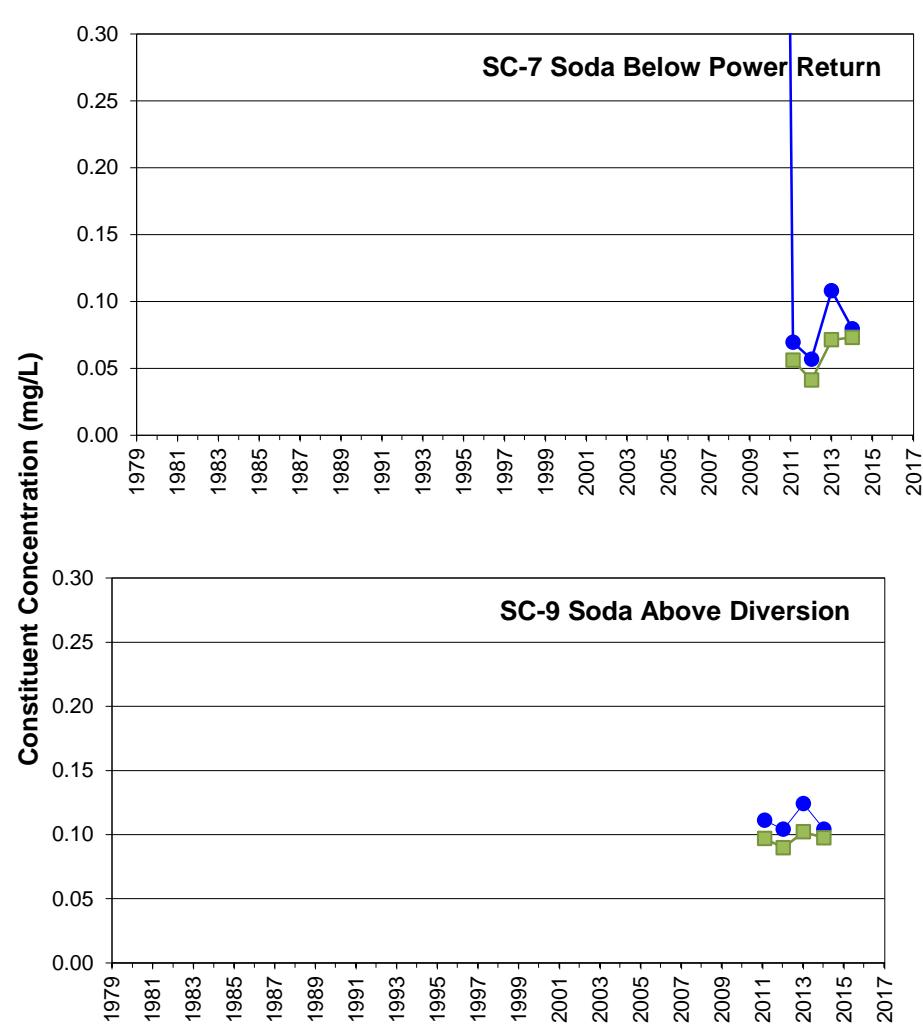


LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)
- Manganese Remediation Goal (0.18 mg/L)

FIGURE C-7
MANGANESE IN SODA CREEK - WEIR TO PROPERTY LINE

Monsanto Annual Groundwater Sampling Report
913-1101-004



Remediation goals shown for point of compliance locations only

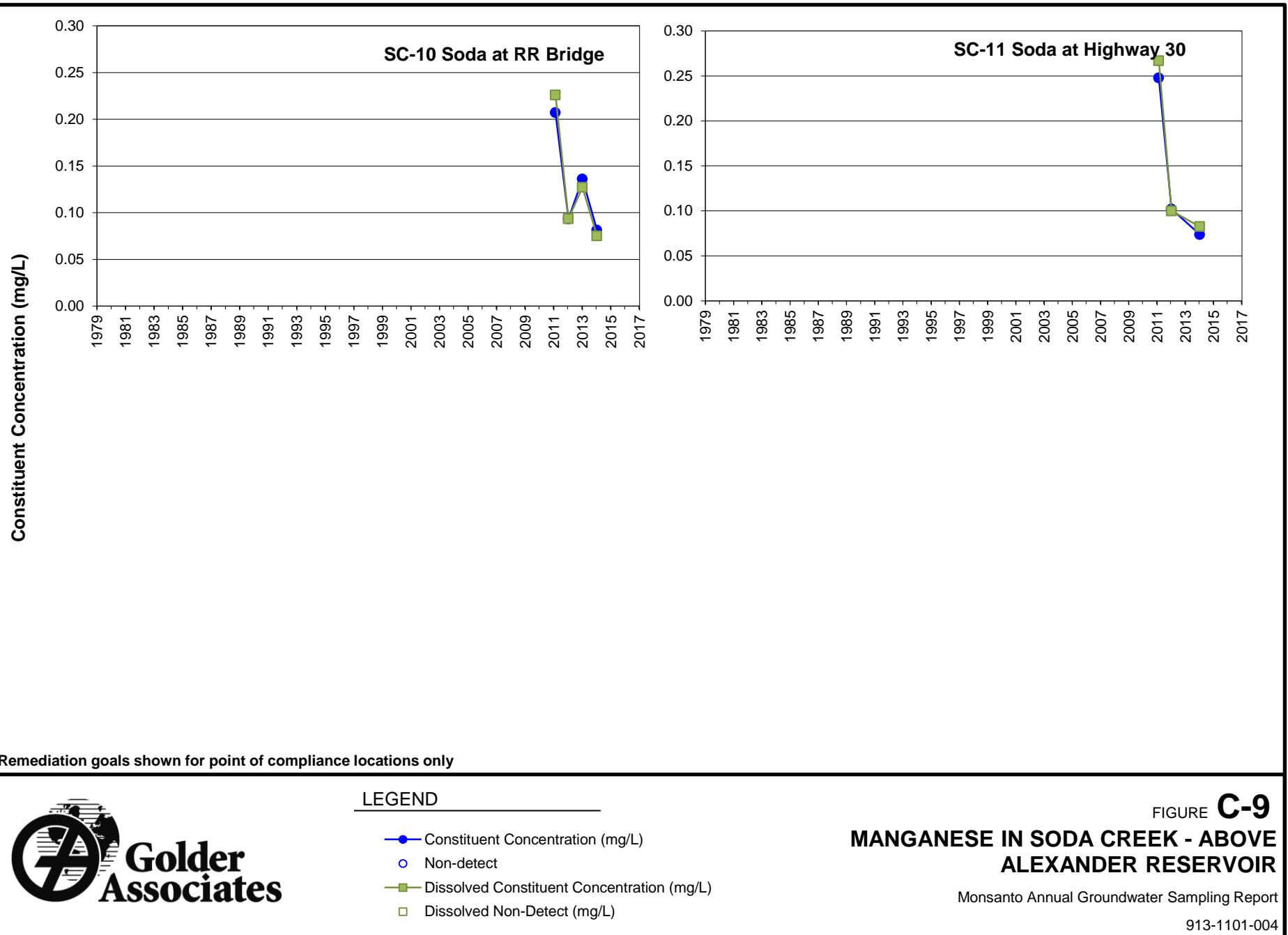


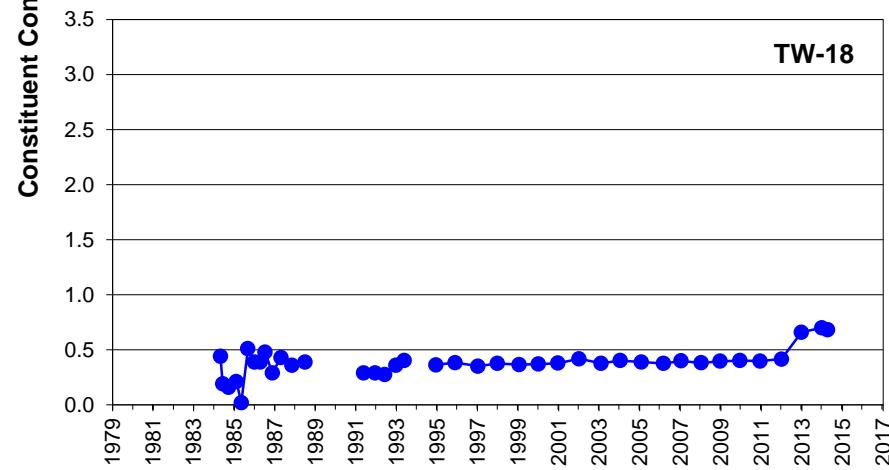
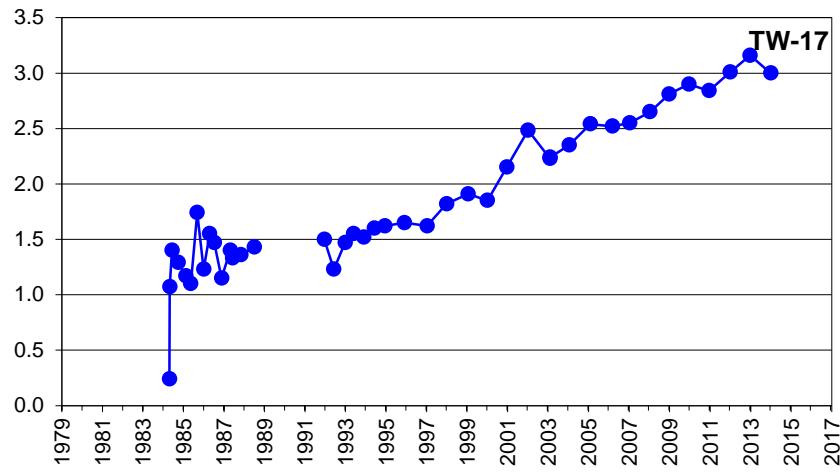
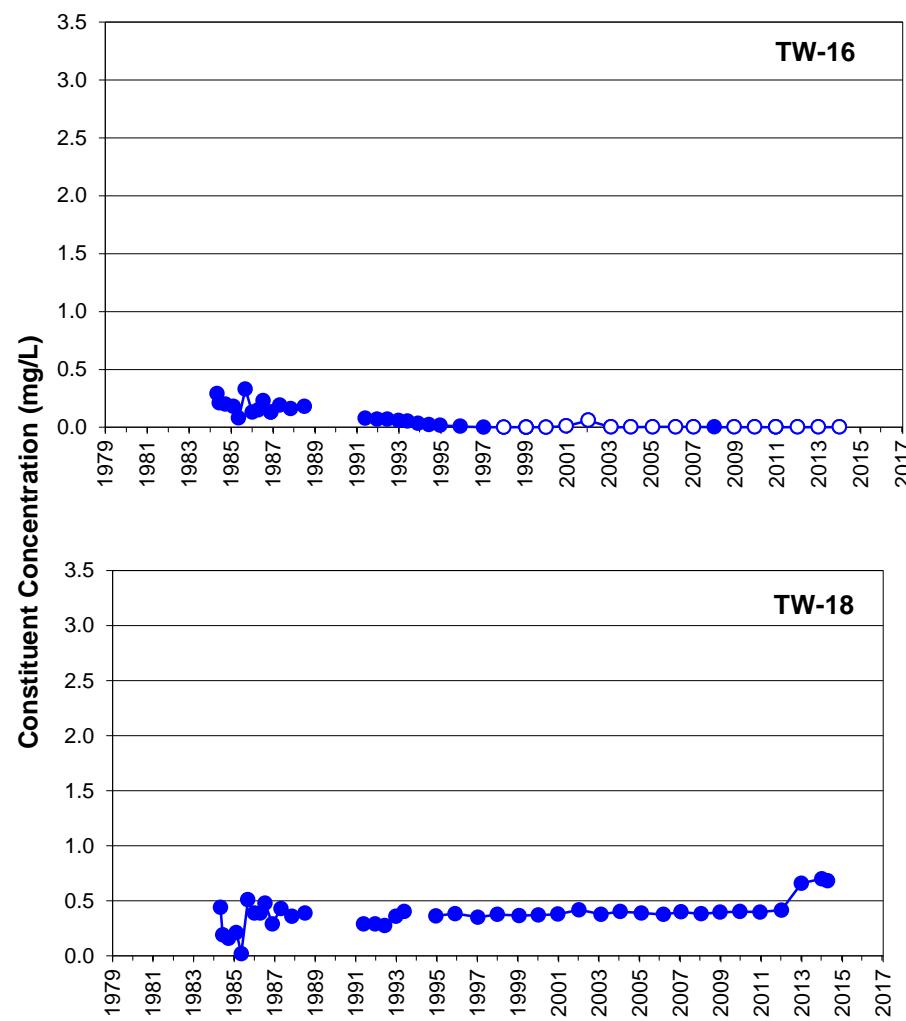
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

FIGURE C-8
MANGANESE IN SODA CREEK - BELOW PROPERTY LINE

Monsanto Annual Groundwater Sampling Report
913-1101-004





Remediation goals shown for point of compliance locations only



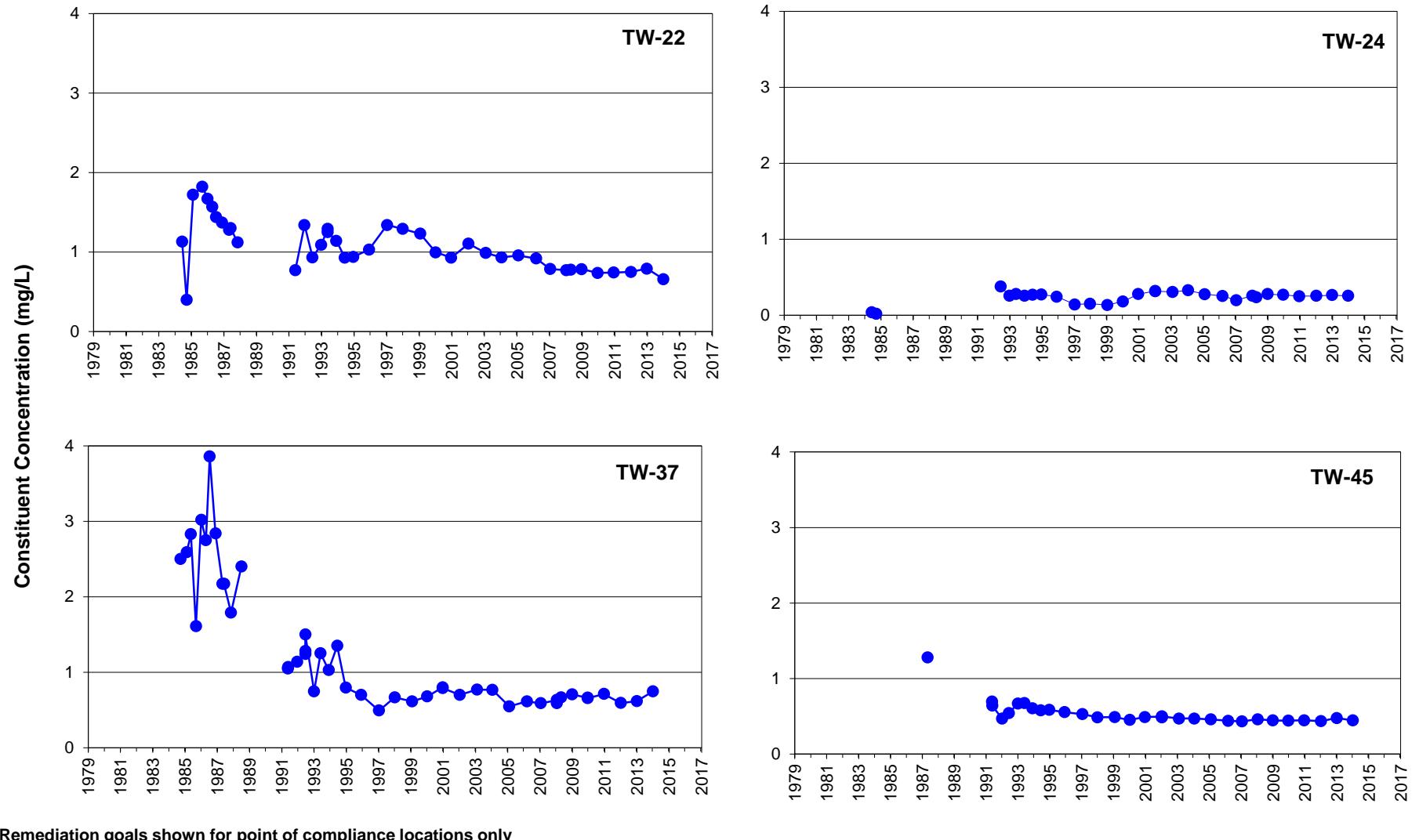
- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE C-10

MANGANESE IN NW POND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

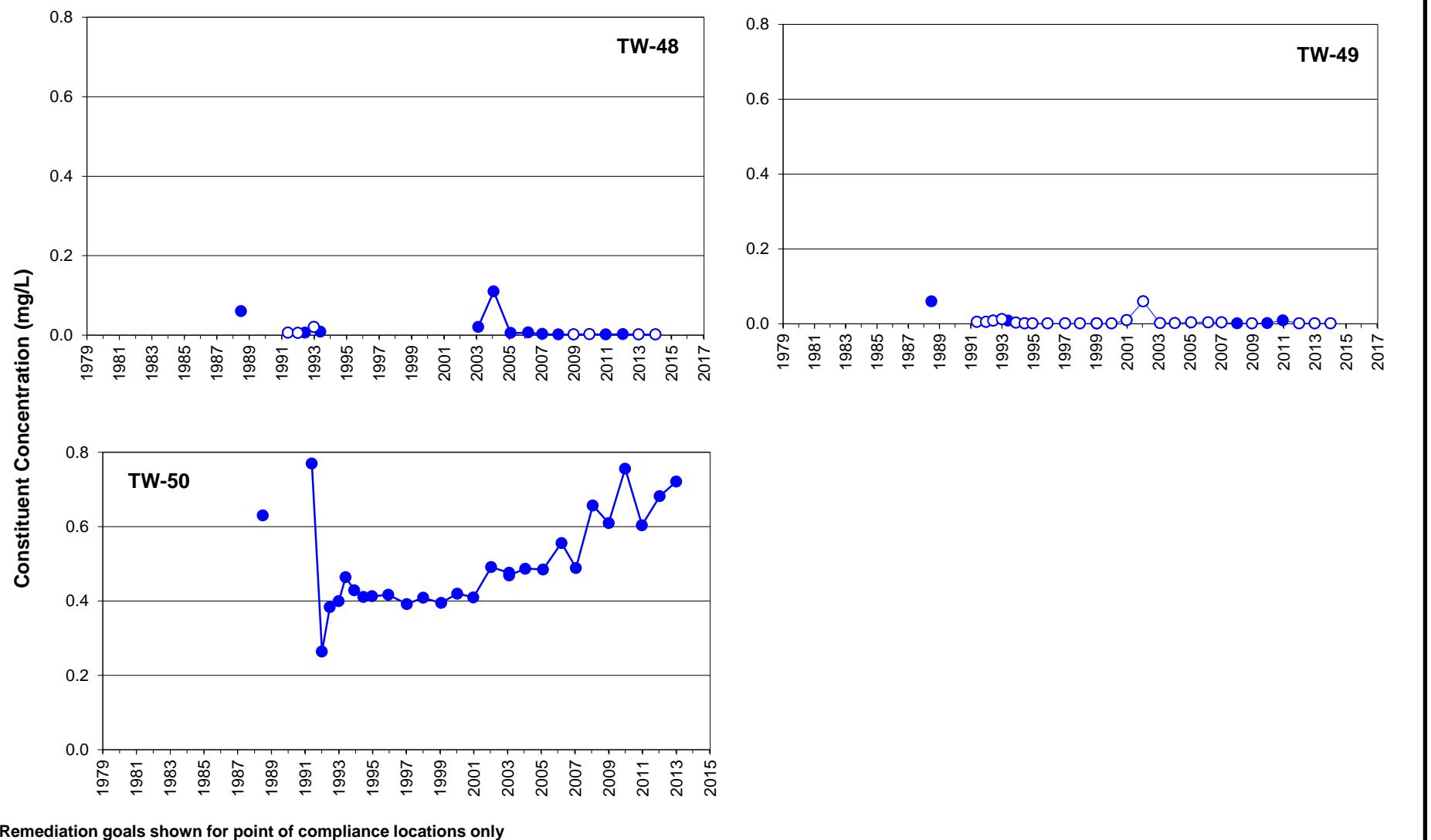


- LEGEND
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE C-11
**MANGANESE IN OLD UNDERFLOW SOLIDS POND AREA
WELLS**

Monsanto Annual Groundwater Sampling Report

913-1101-004



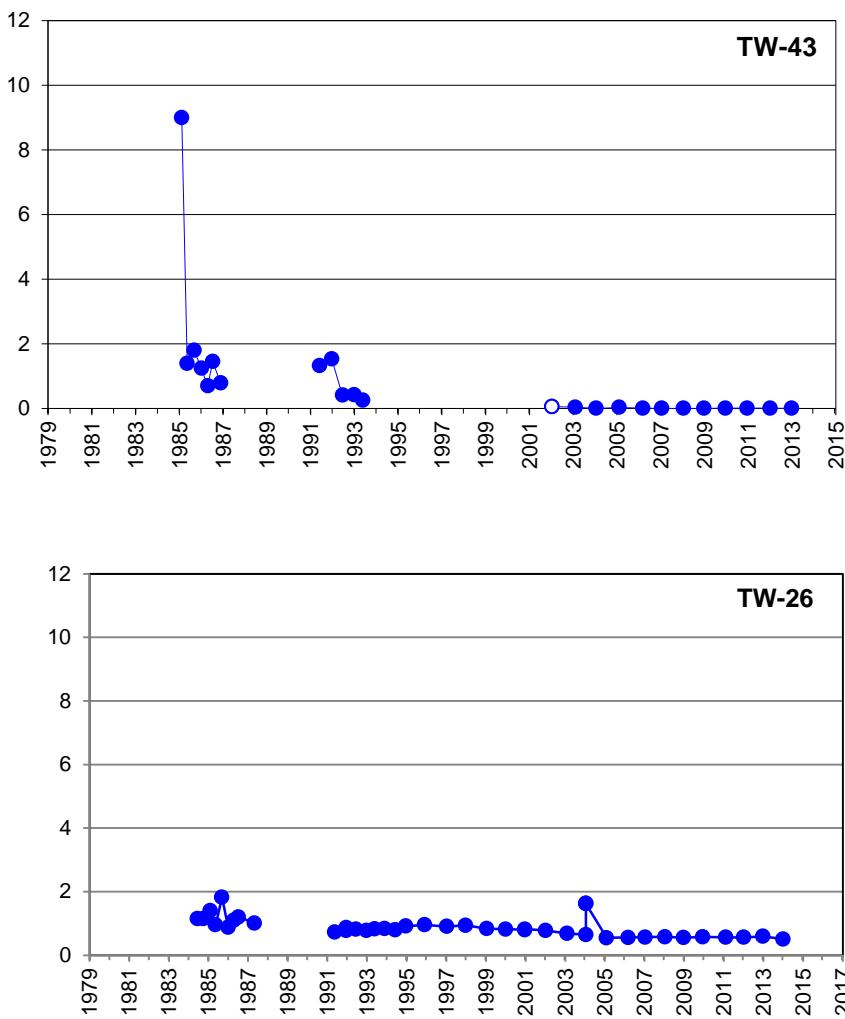
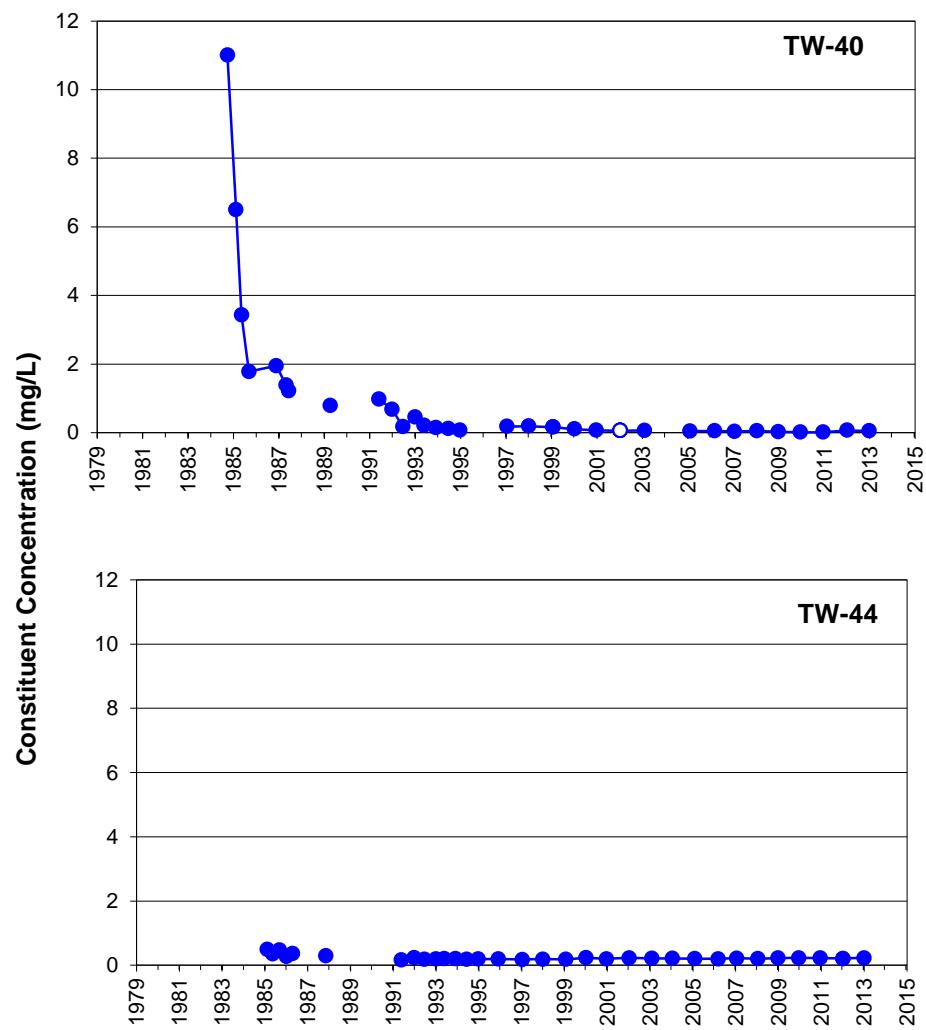
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects

FIGURE C-12
**MANGANESE IN UNDERFLOW SOLIDS
PILES AREA WELLS**

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

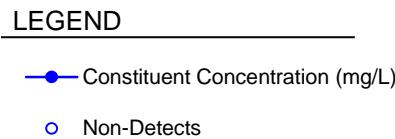
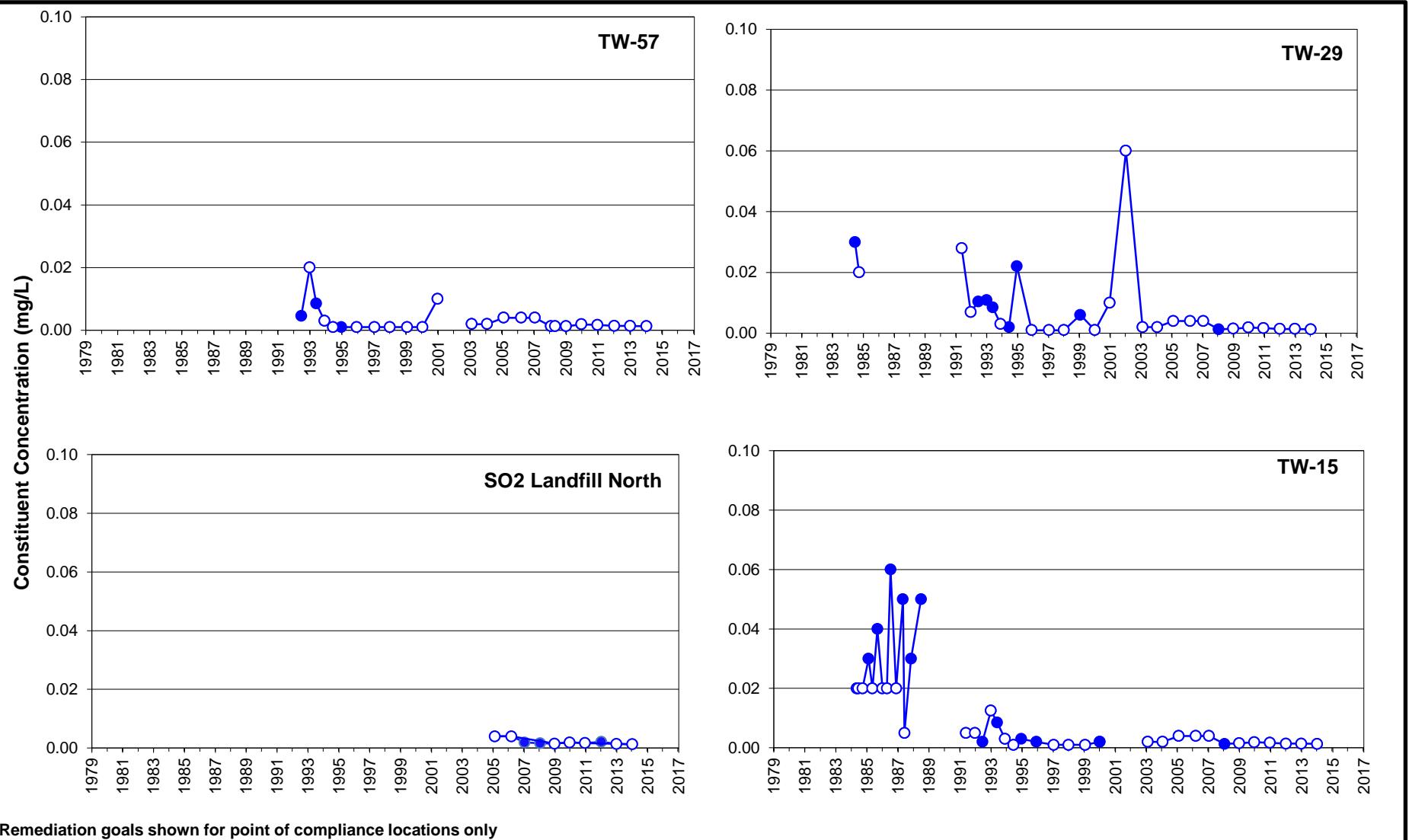


FIGURE C-13
MANGANESE IN HYDROCLARIFIER AND
PLANT AREA WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

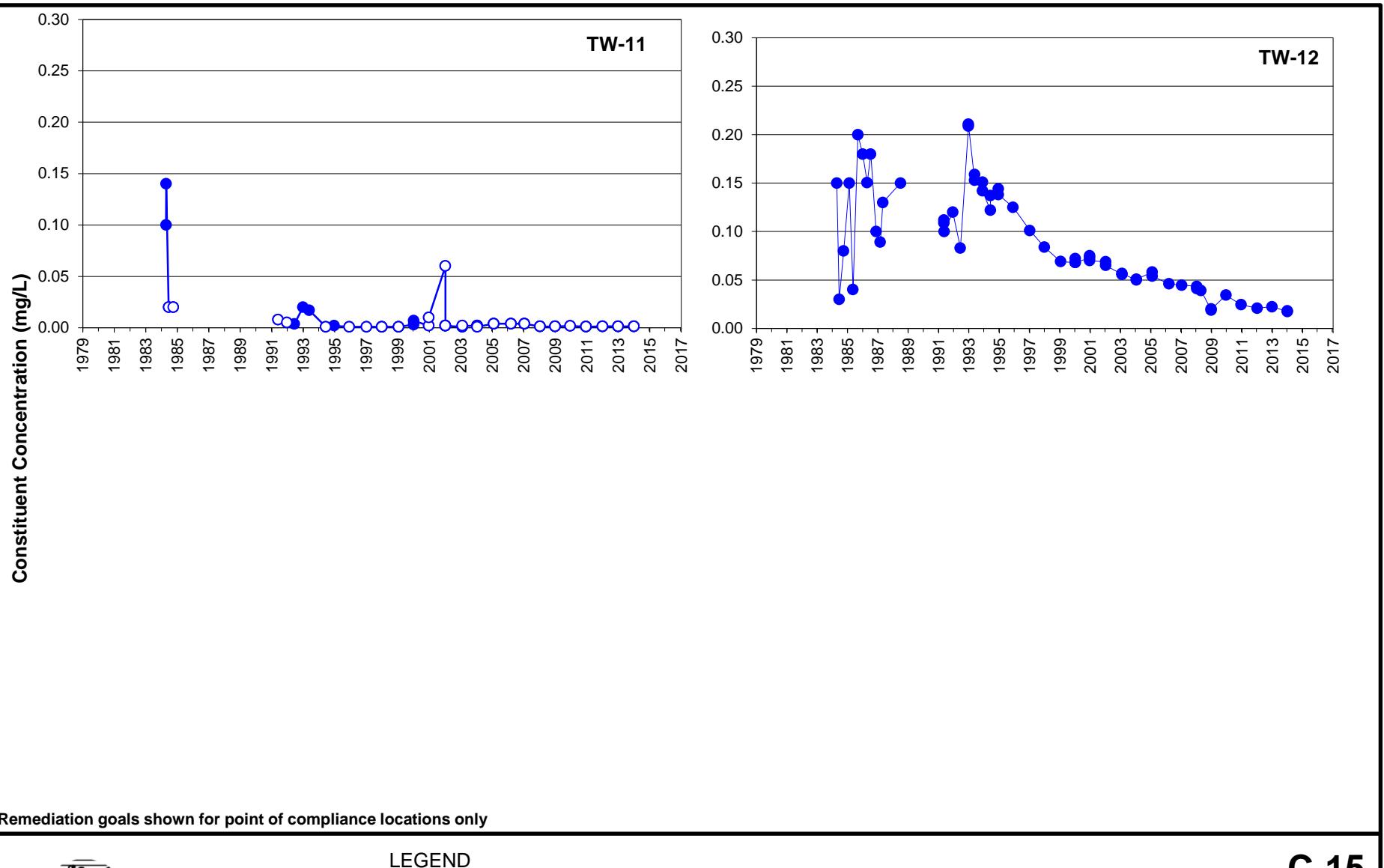
- Constituent Concentration (mg/L)
- Non-Detects

FIGURE C-14

MANGANESE IN BACKGROUND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

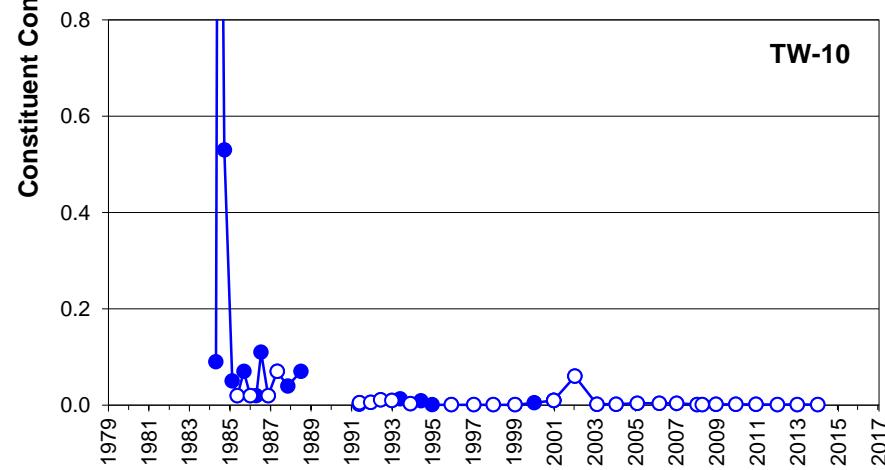
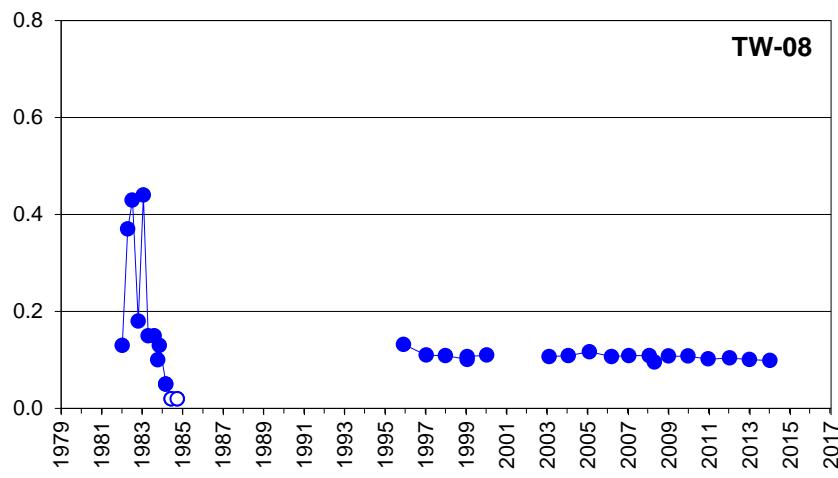
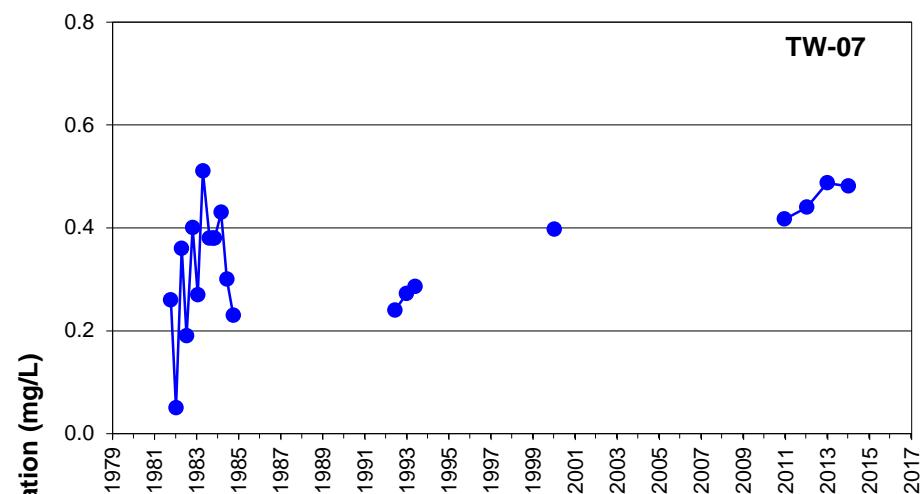
- Constituent Concentration (mg/L)
- Non-Detects

FIGURE C-15

MANGANESE IN SOUTHEAST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

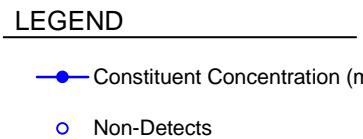
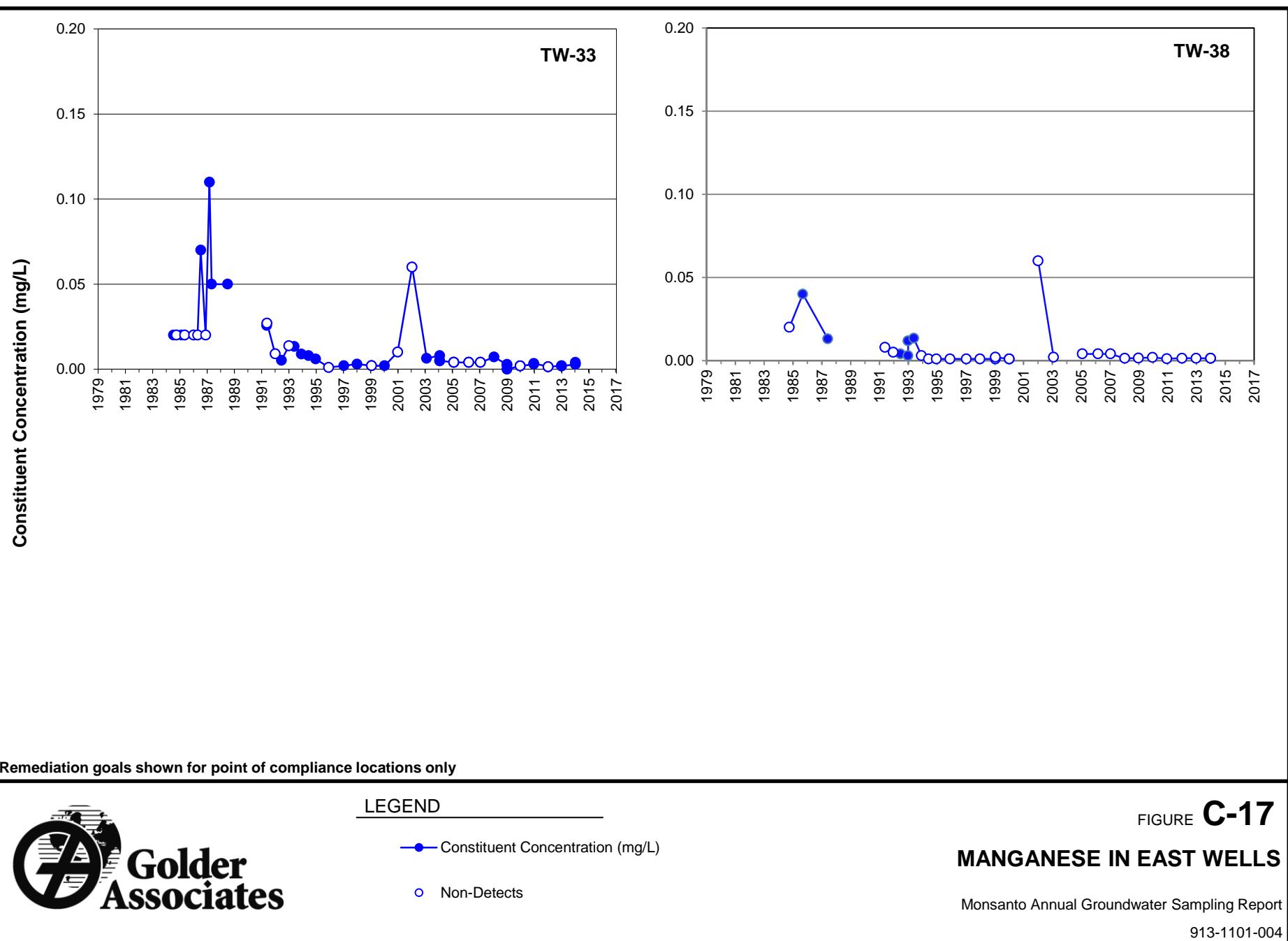


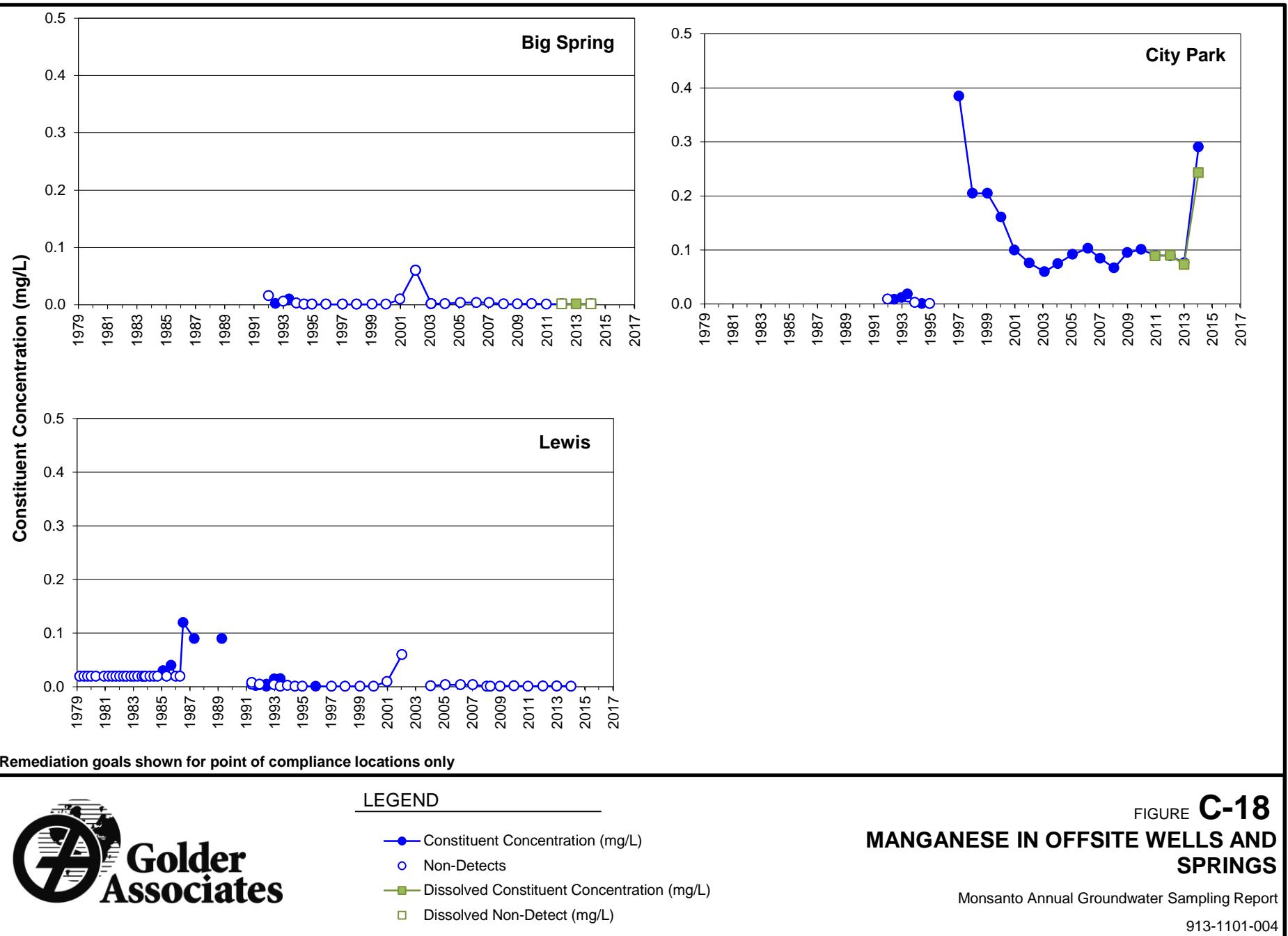
FIGURE C-16

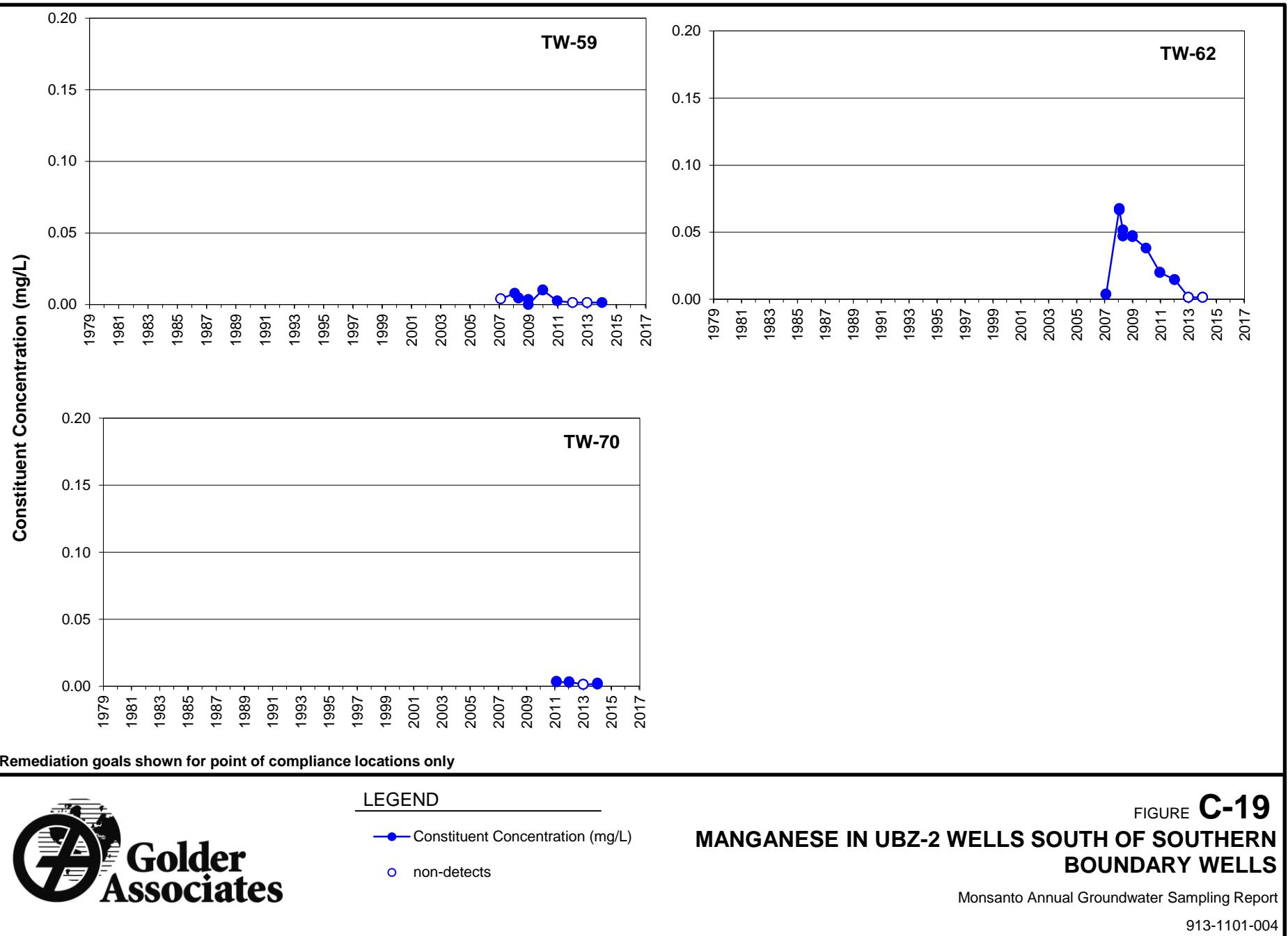
MANGANESE IN SOUTHWEST CORNER WELLS

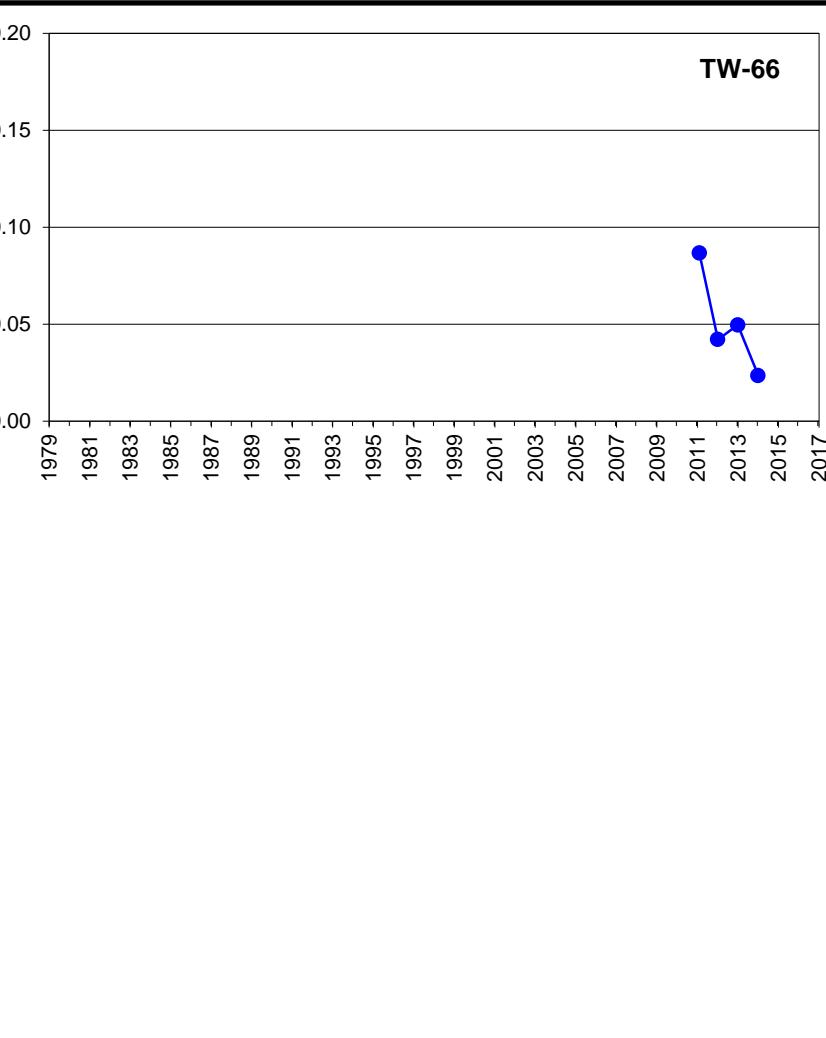
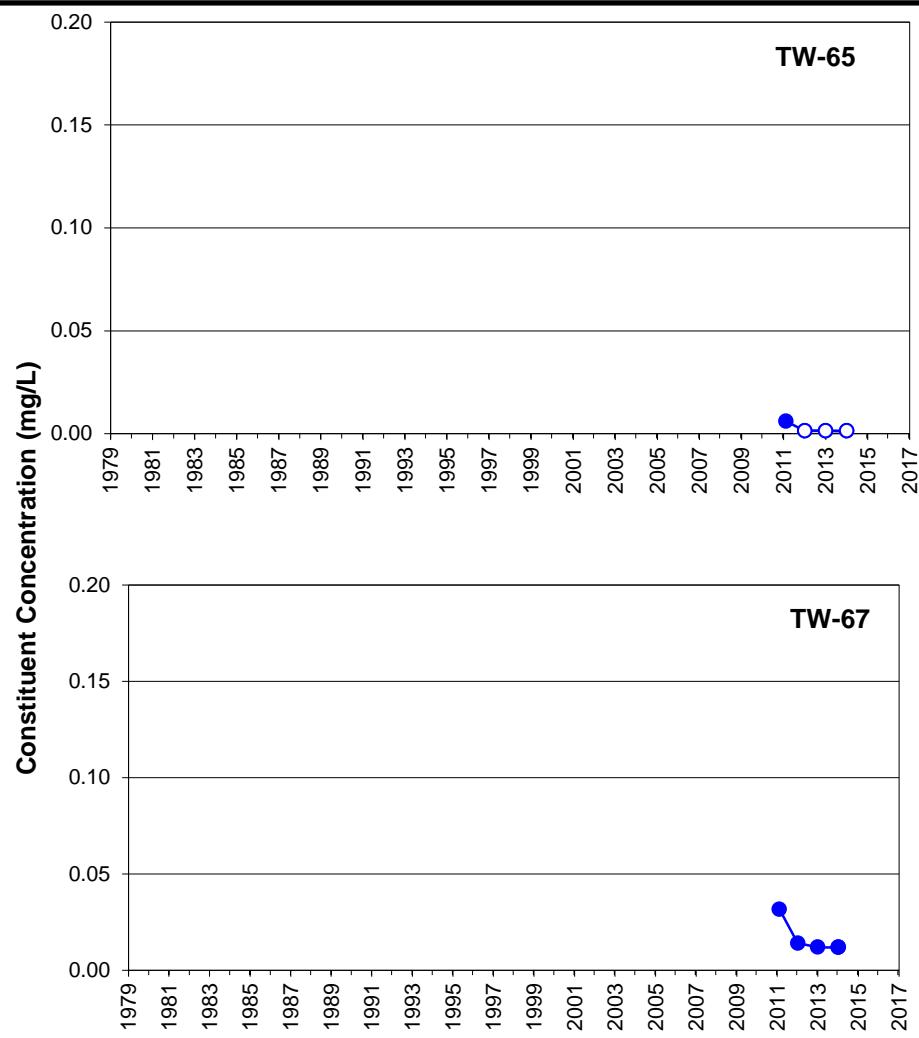
Monsanto Annual Groundwater Sampling Report

913-1101-004









Remediation goals shown for point of compliance locations only



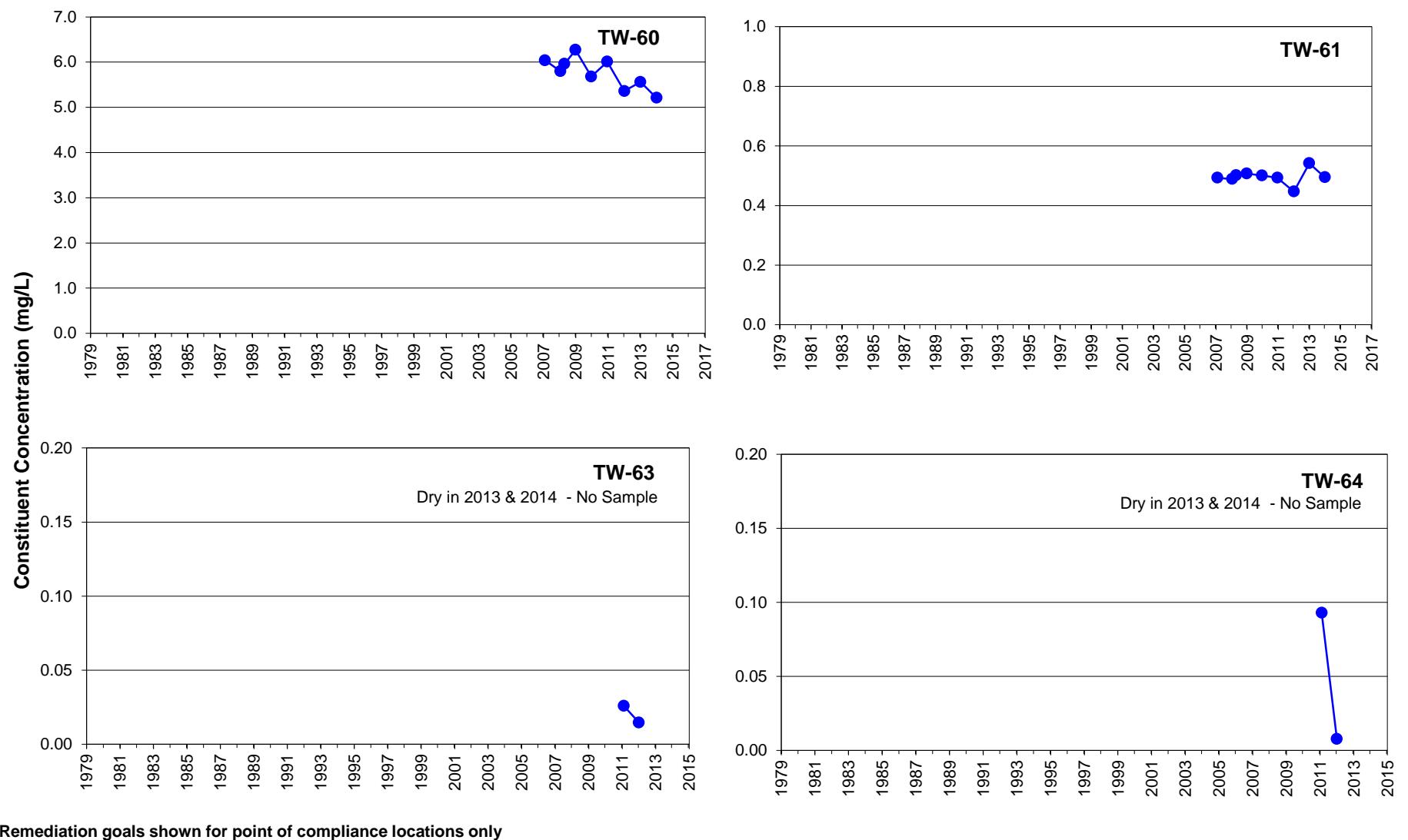
- LEGEND**
- Constituent Concentration (mg/L)
 - non-detects

FIGURE C-20

MANGANESE IN UBZ-2 WELLS AT PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

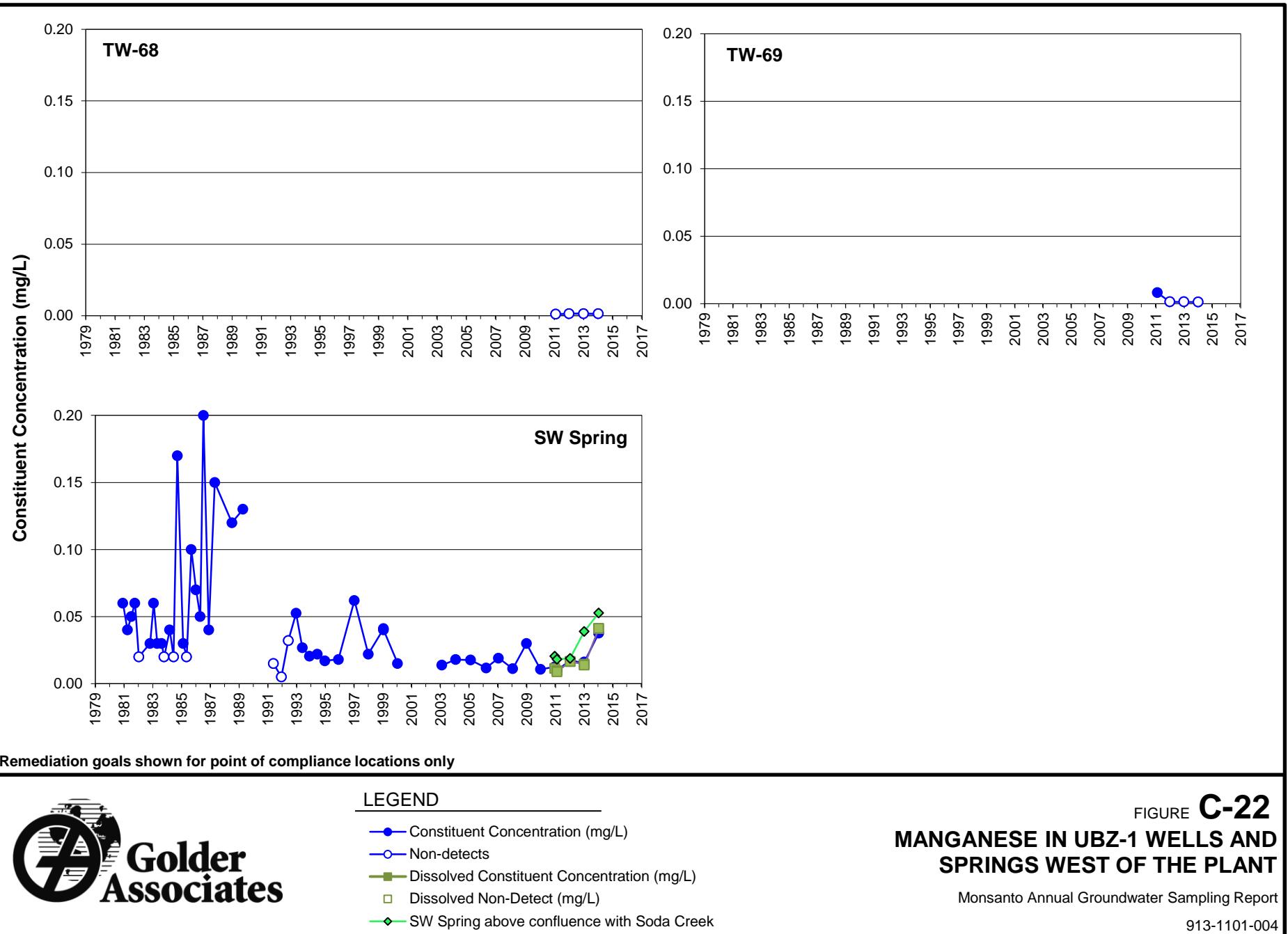
- Constituent Concentration (mg/L)
- non-detects

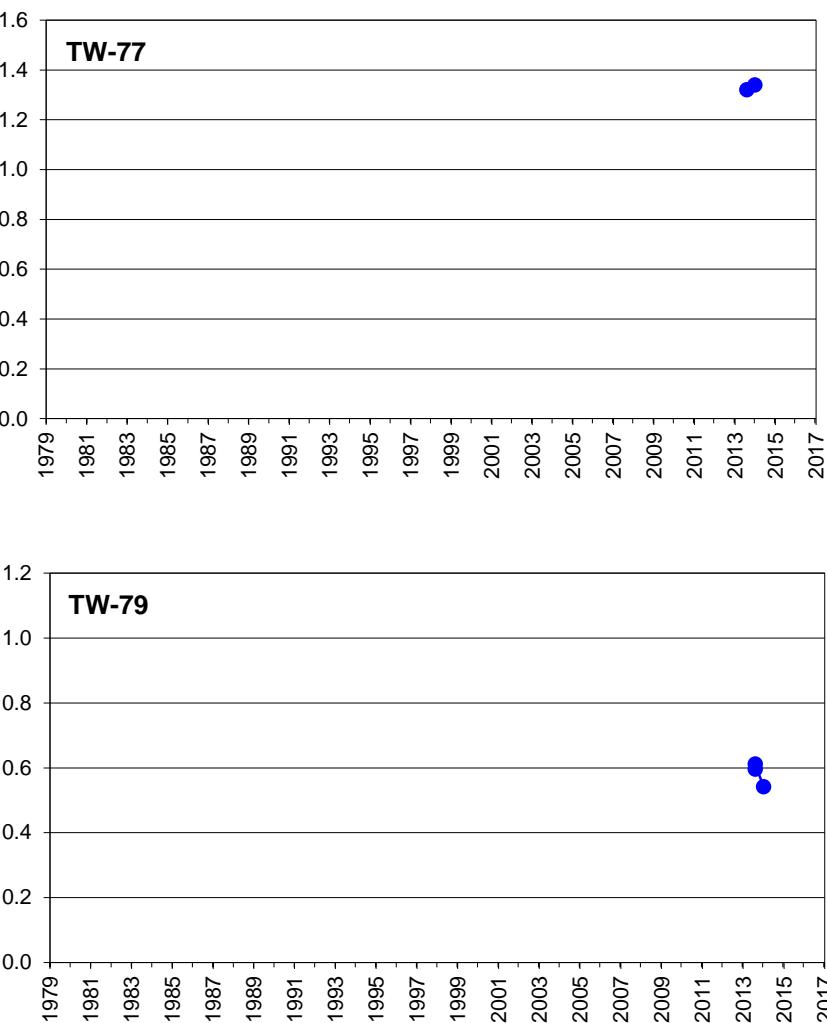
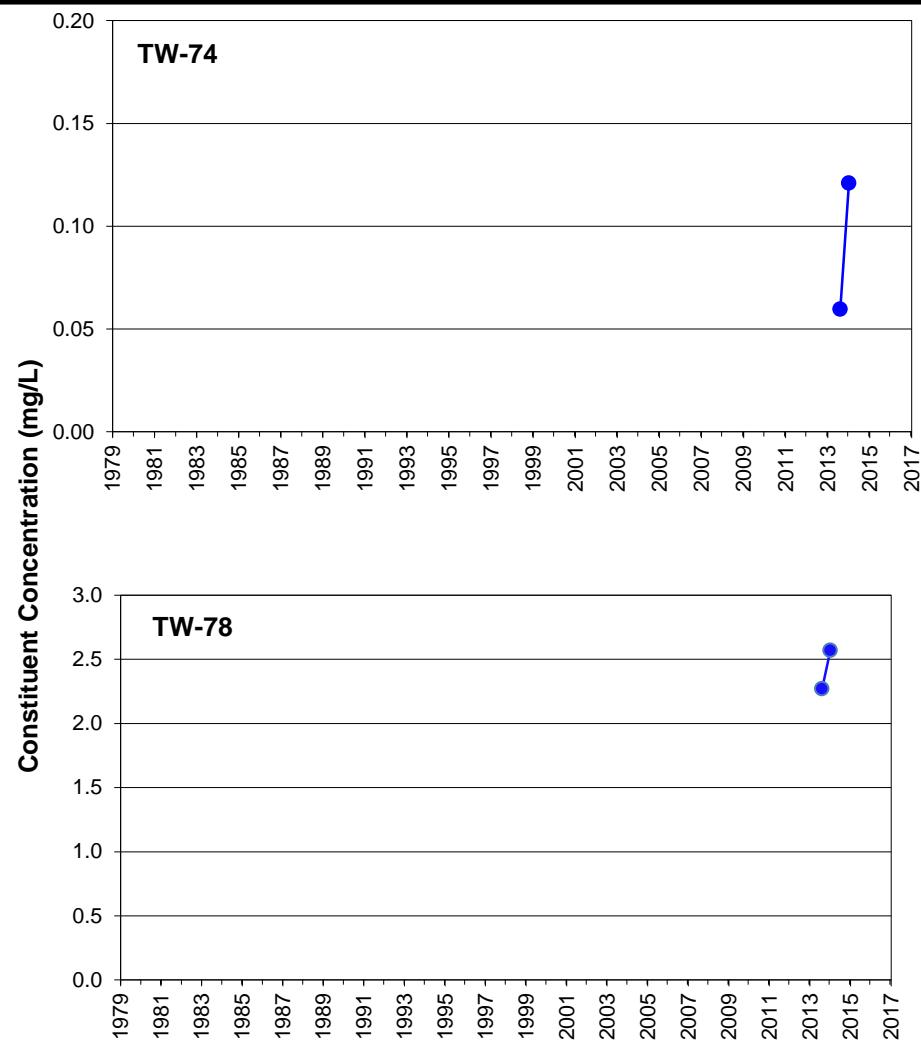
FIGURE C-21

MANGANESE IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only

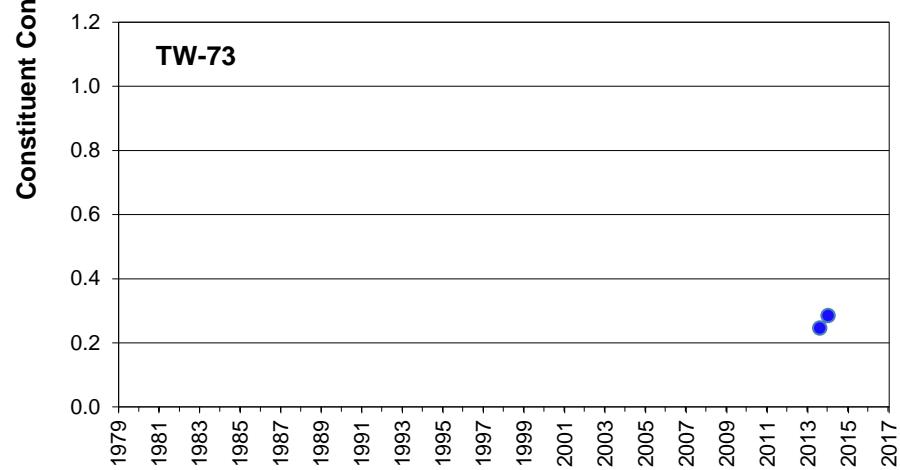
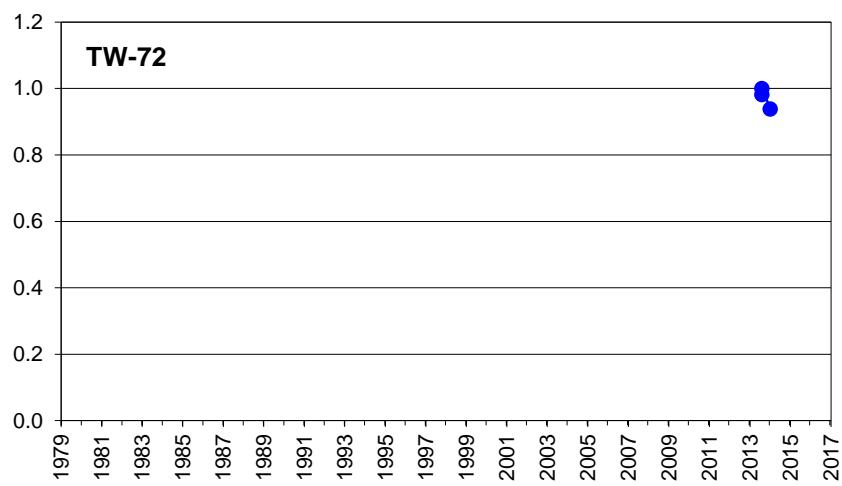
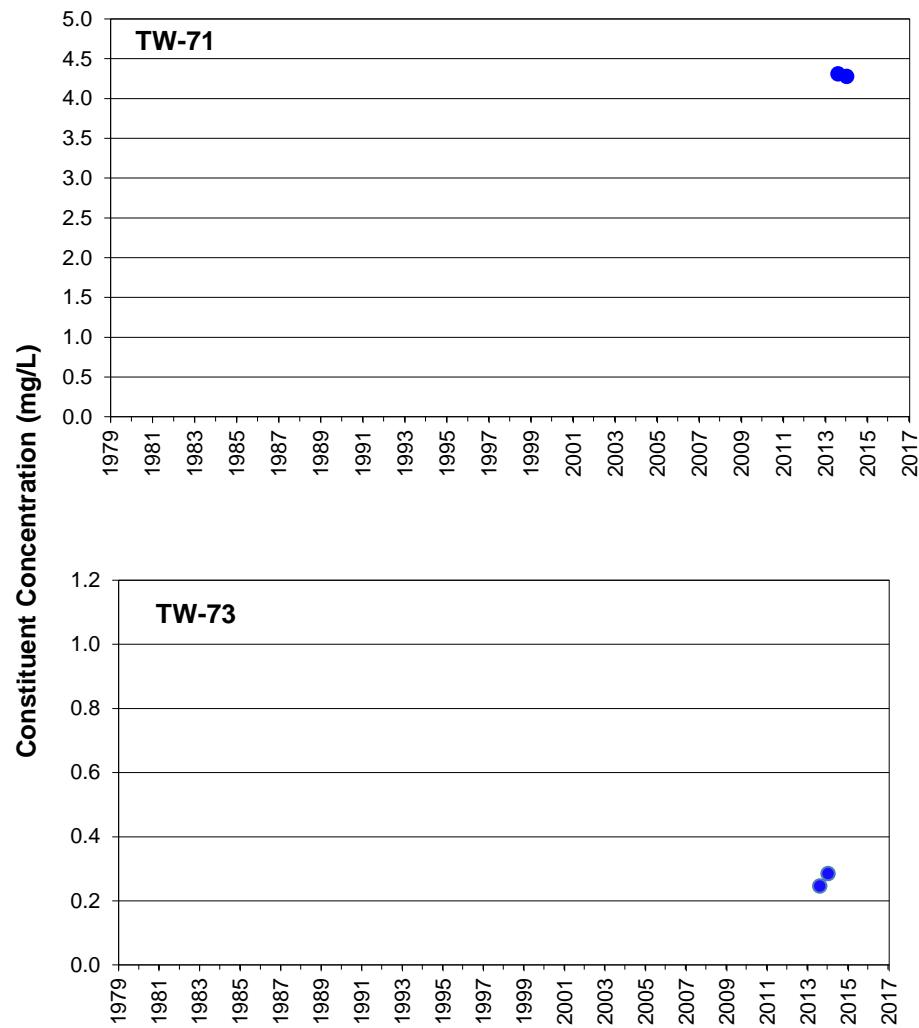


- LEGEND
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE C-23
MANGANESE IN UBZ-4 TAILINGS POND
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

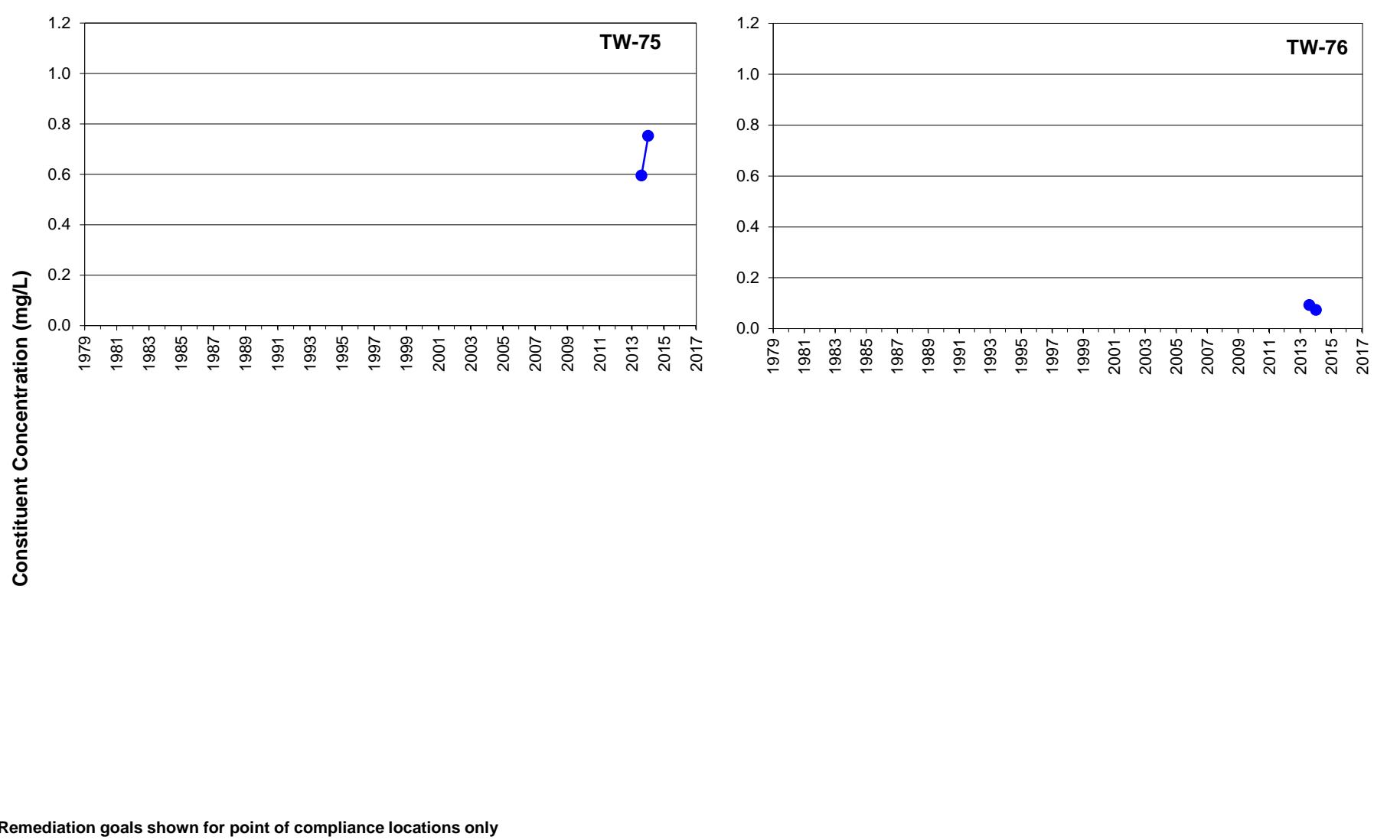


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE C-24
MANGANESE IN UBZ-2 OLD UFS PONDS
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



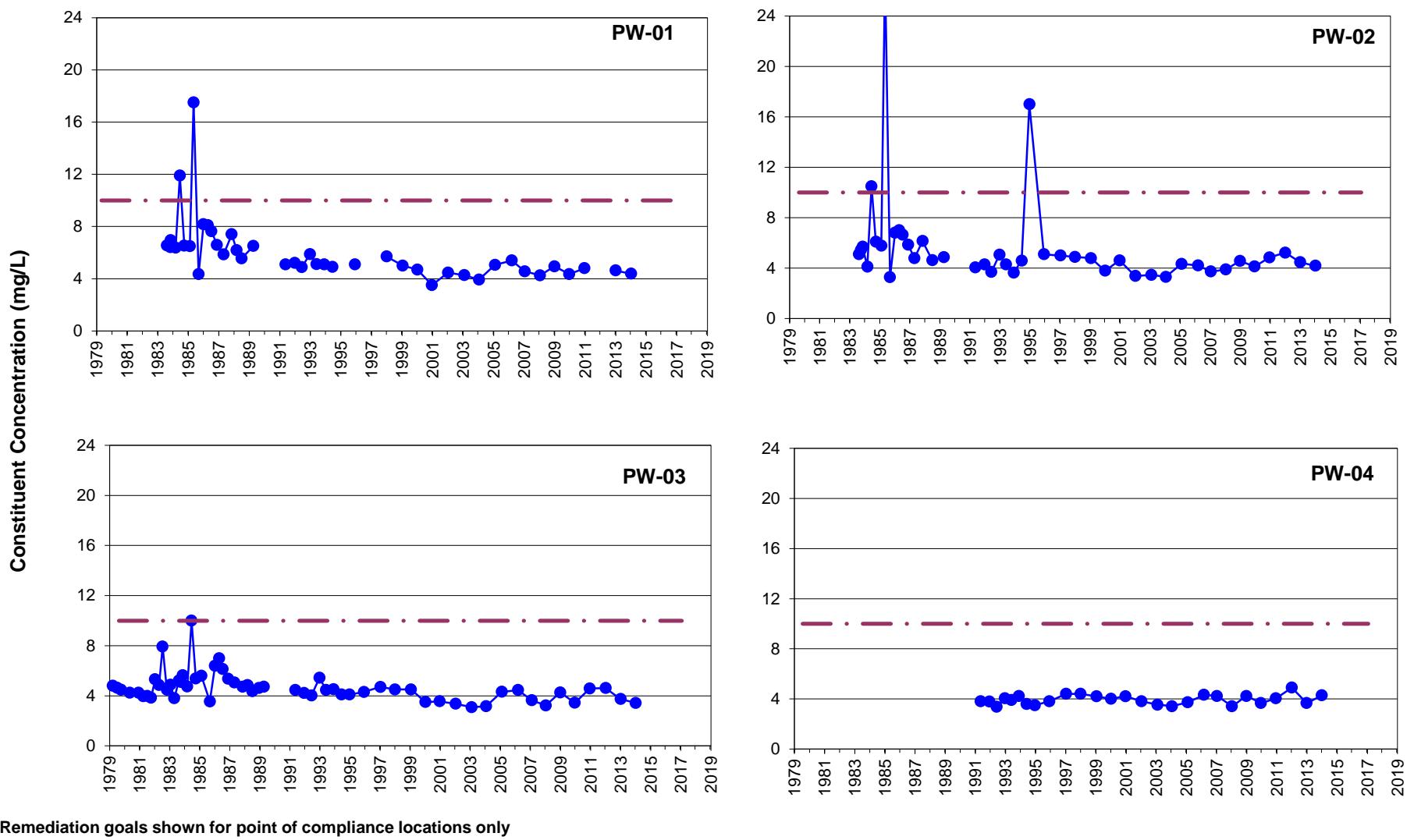
- LEGEND
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE C-25
MANGANESE IN UBZ-2 TAILINGS POND
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004

APPENDIX D
TIME-HISTORY GRAPHS FOR NITRATE AS N



LEGEND

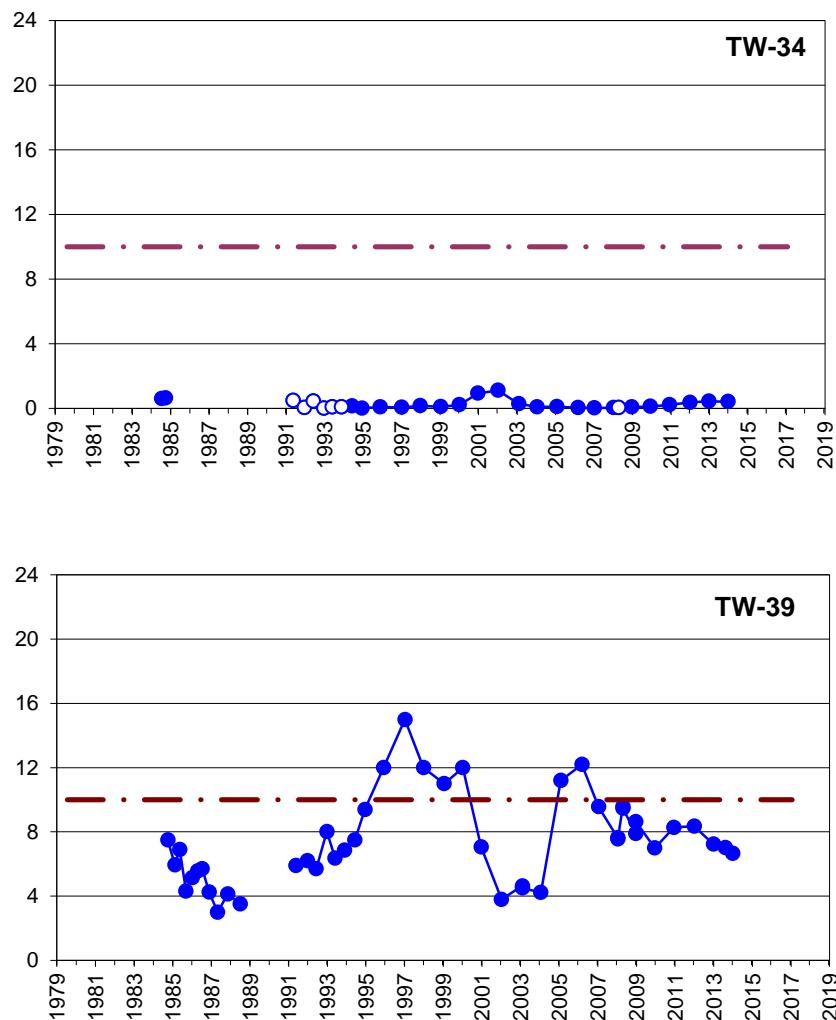
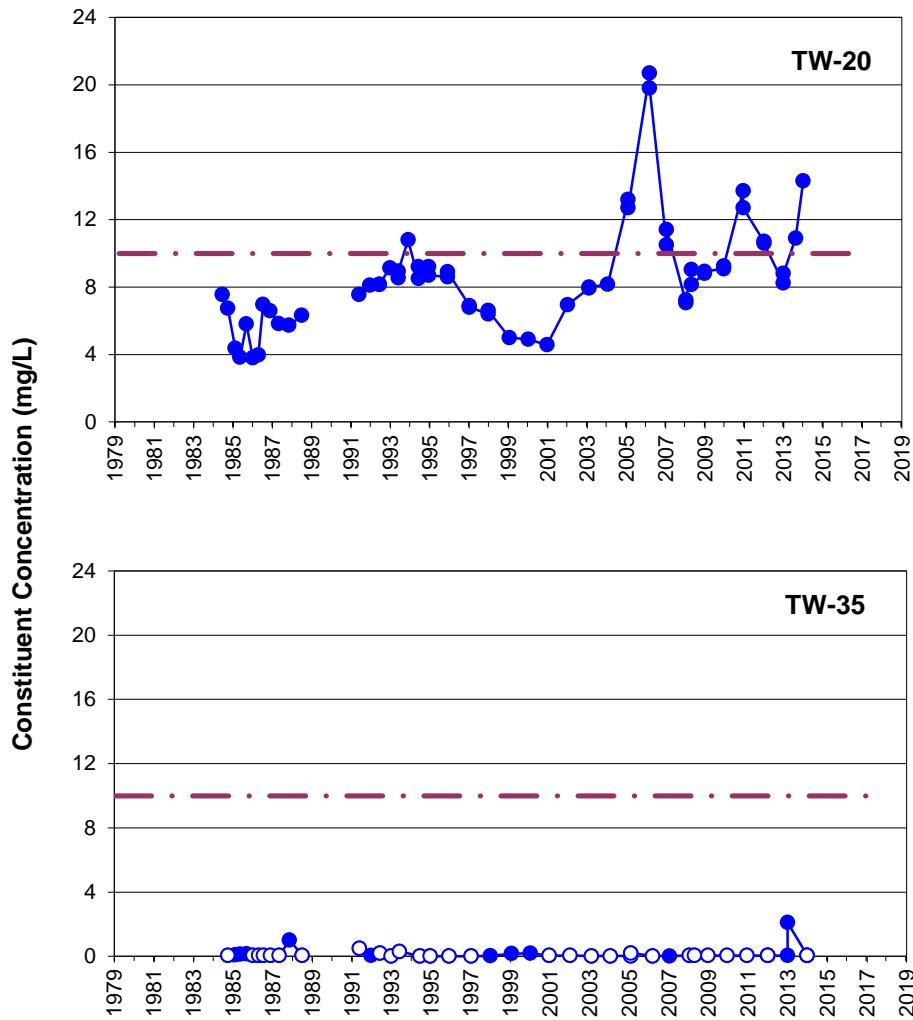
- Constituent Concentration (mg/L)
- Non-Detects
- Nitrate as N Remediation Goal (10 mg/L)

FIGURE D-1

NITRATE IN PRODUCTION WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



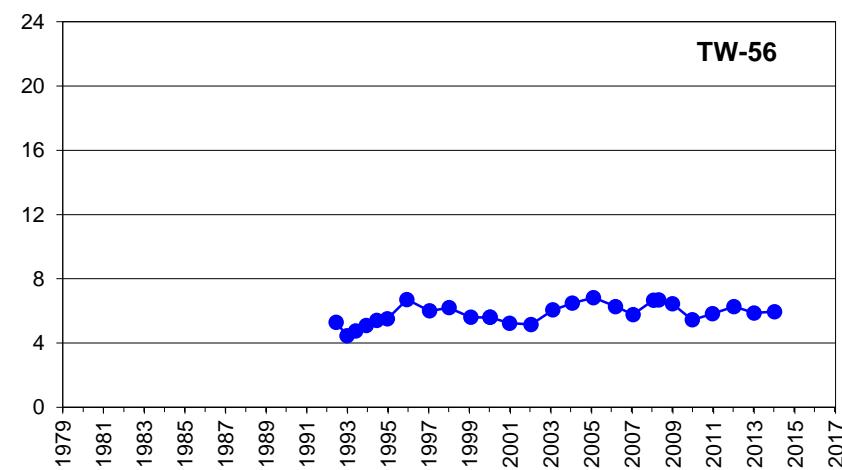
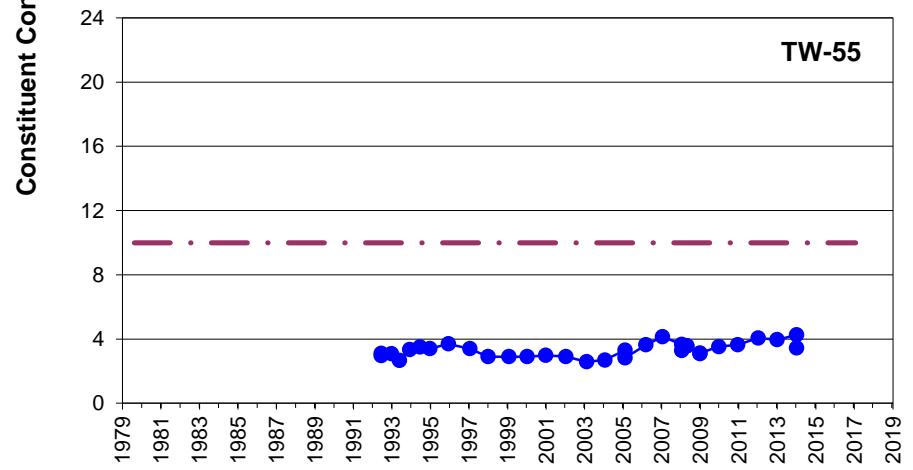
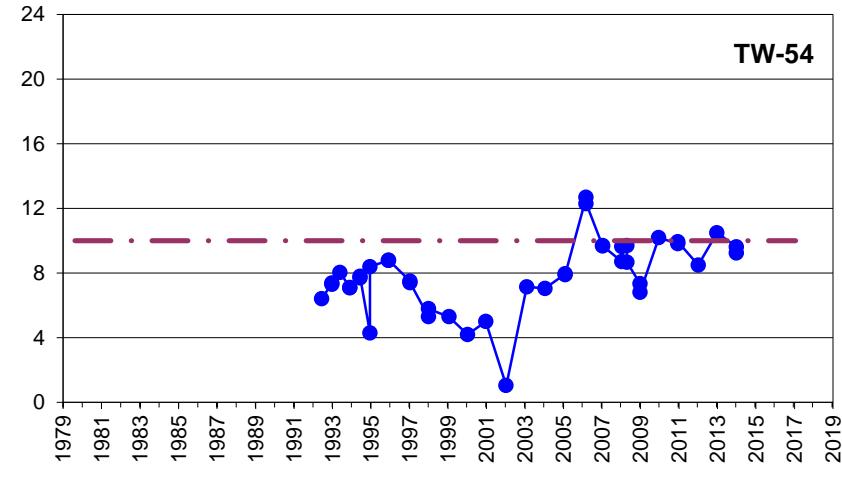
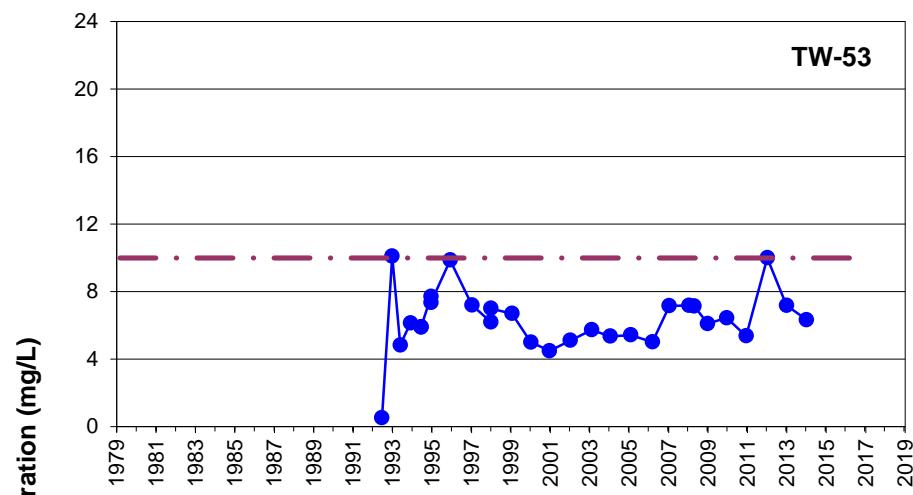
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Nitrate as N Remediation Goal (10 mg/L)

FIGURE D-2
NITRATE IN SOUTH FENCELINE WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Nitrate as N Remediation Goal (10 mg/L)

FIGURE D-3

NITRATE IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004

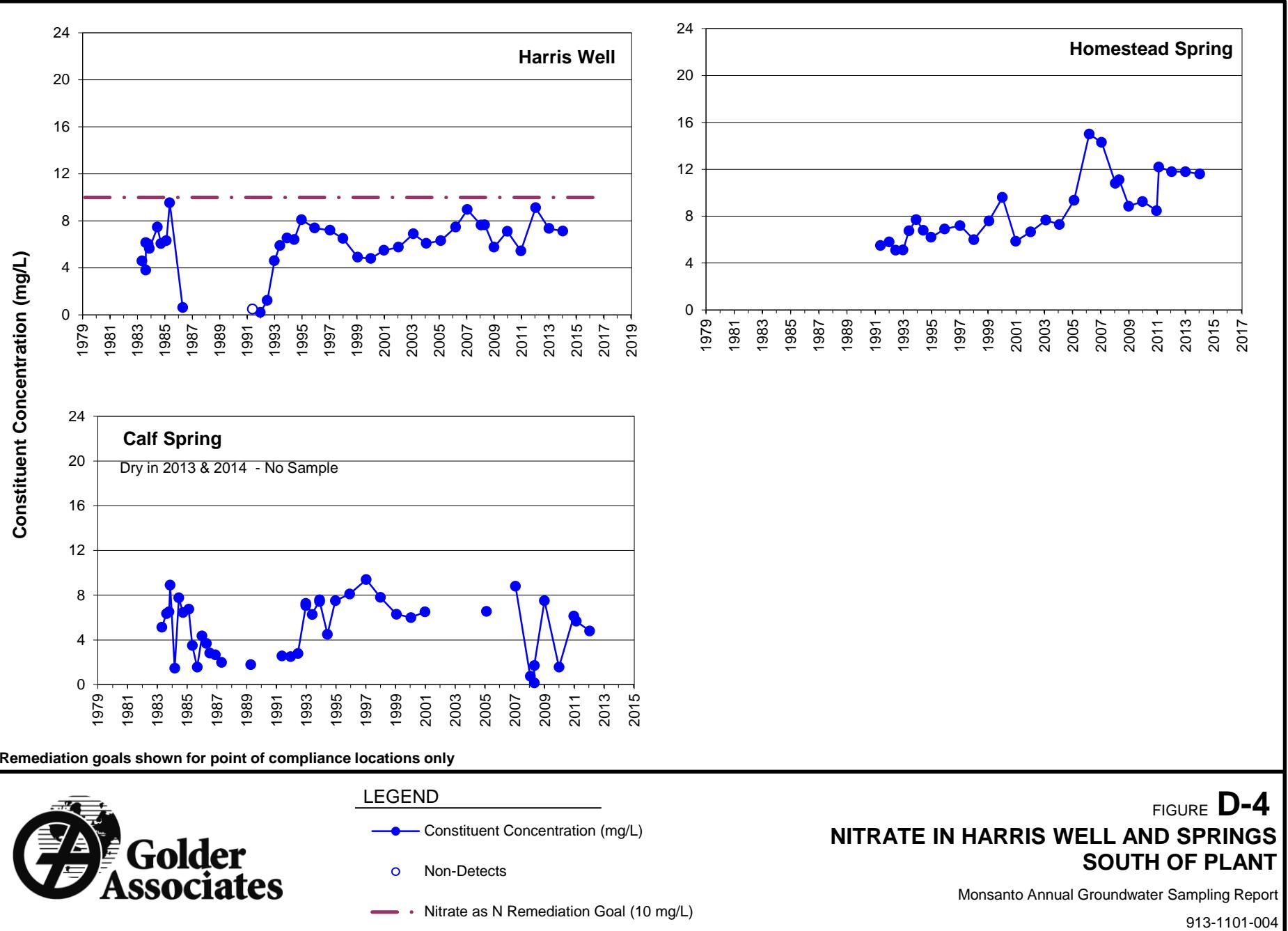
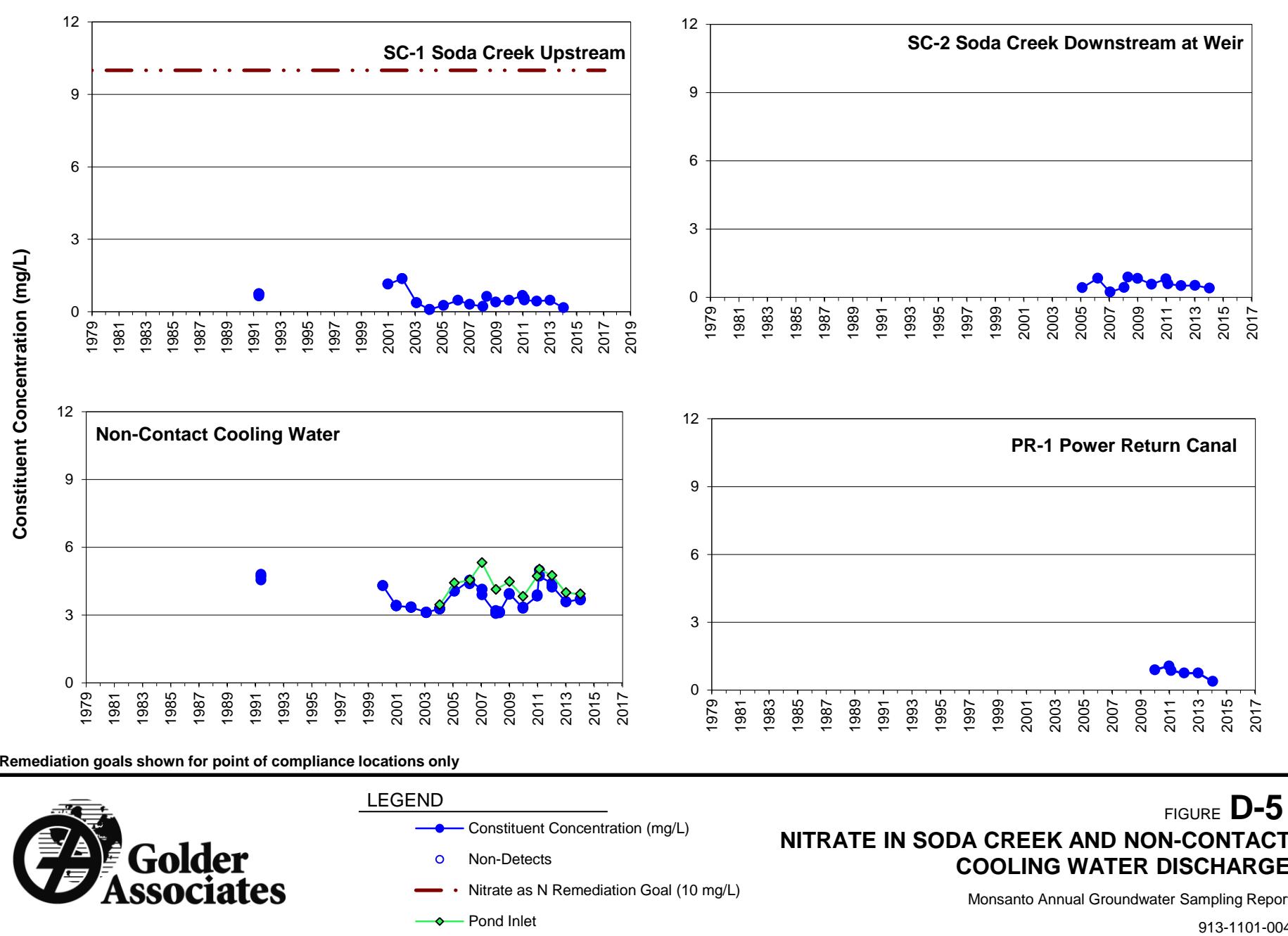


FIGURE D-4
**NITRATE IN HARRIS WELL AND SPRINGS
SOUTH OF PLANT**

Monsanto Annual Groundwater Sampling Report

913-1101-004

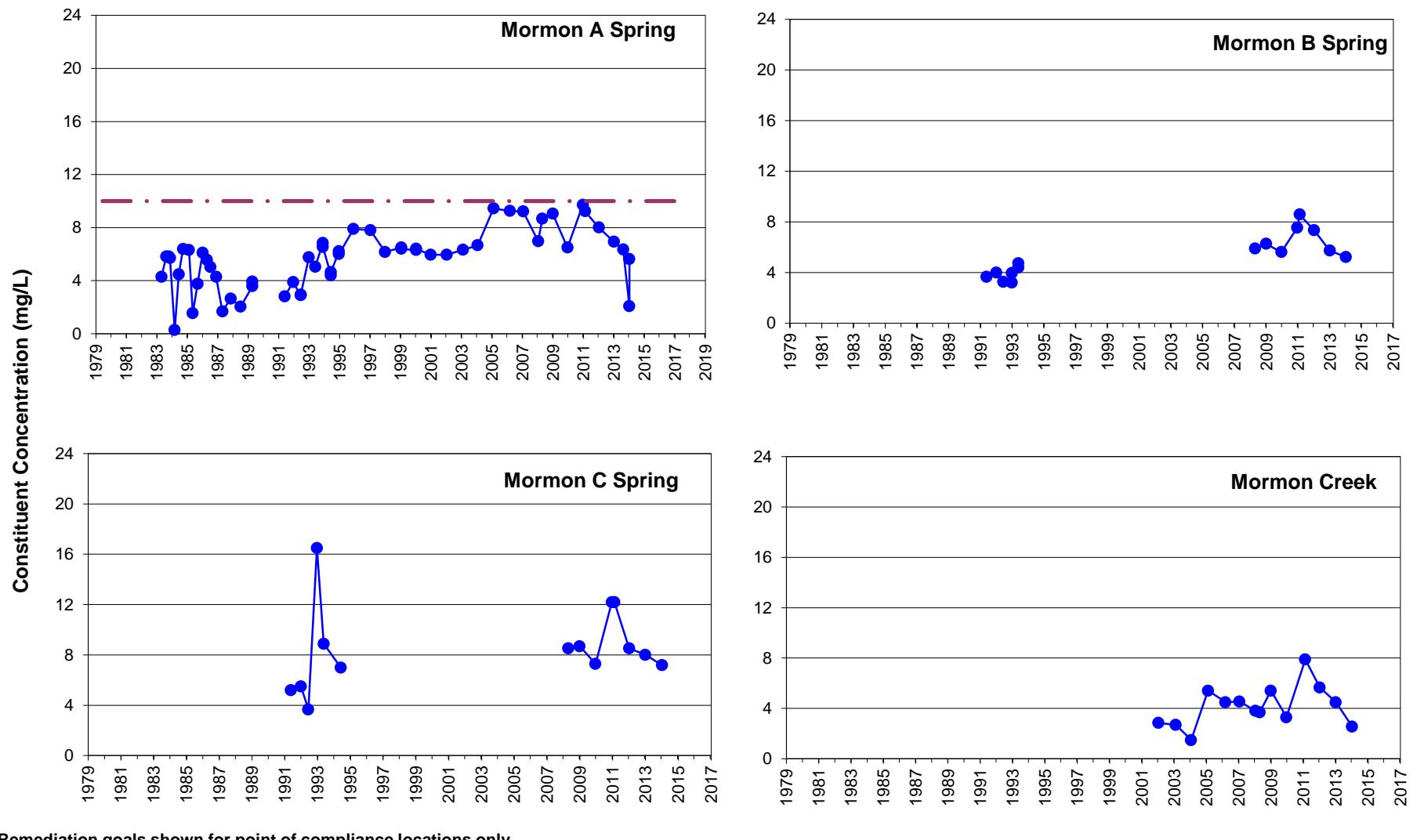


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Nitrate as N Remediation Goal (10 mg/L)
 - ◆ Pond Inlet

FIGURE D-5
NITRATE IN SODA CREEK AND NON-CONTACT COOLING WATER DISCHARGE

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

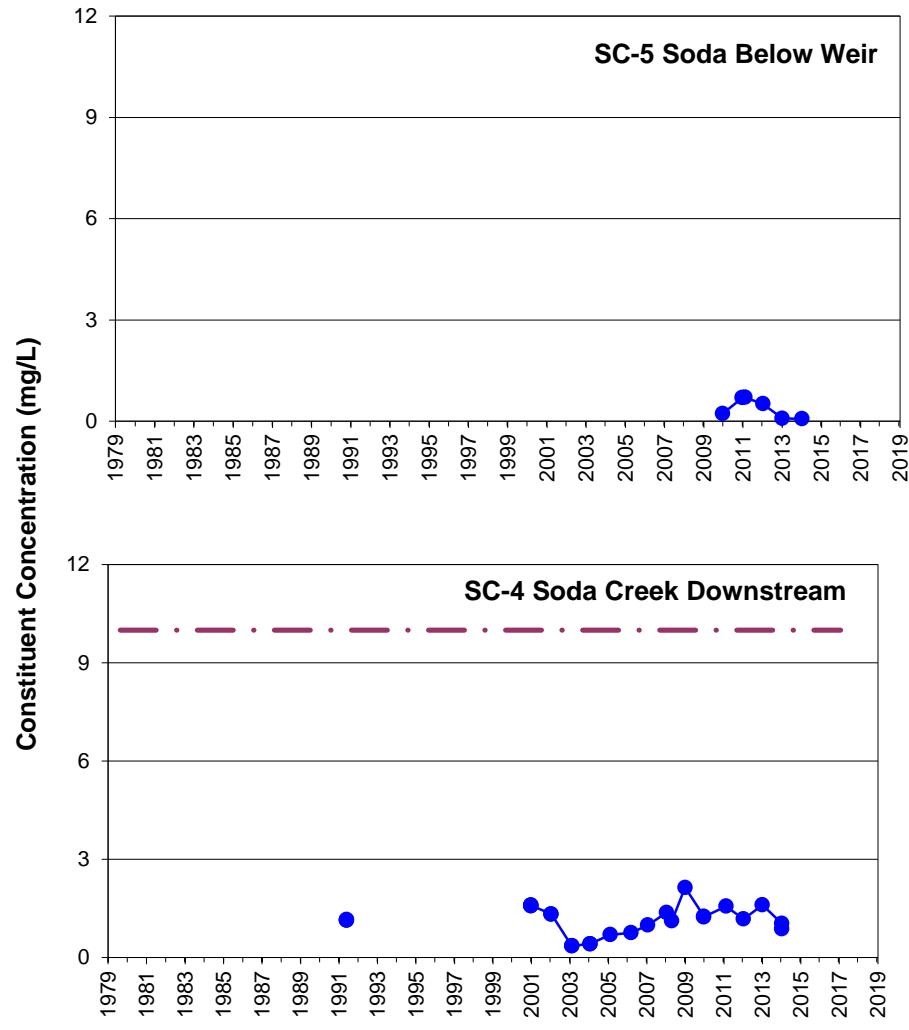


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Nitrate as N Remediation Goal (10 mg/L)

FIGURE D-6
**NITRATE IN MORMON A, B, AND C SPRINGS
AND MORMON CREEK**

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Nitrate as N Remediation Goal (10 mg/L)

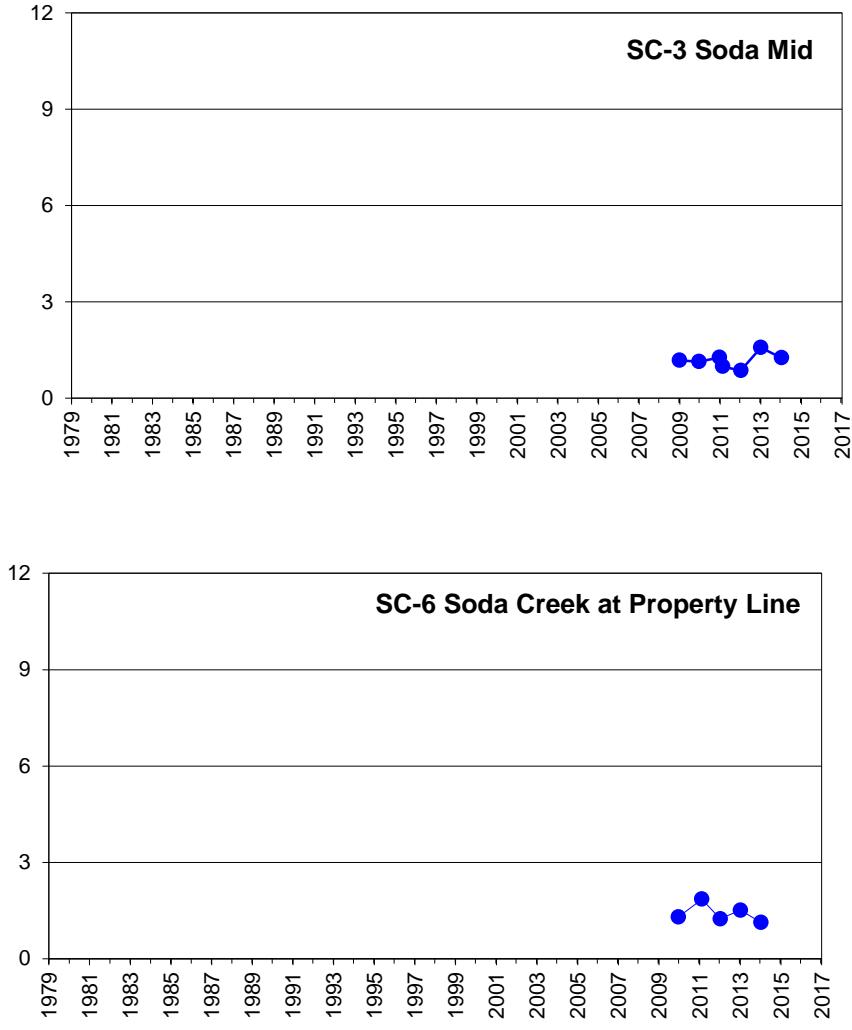
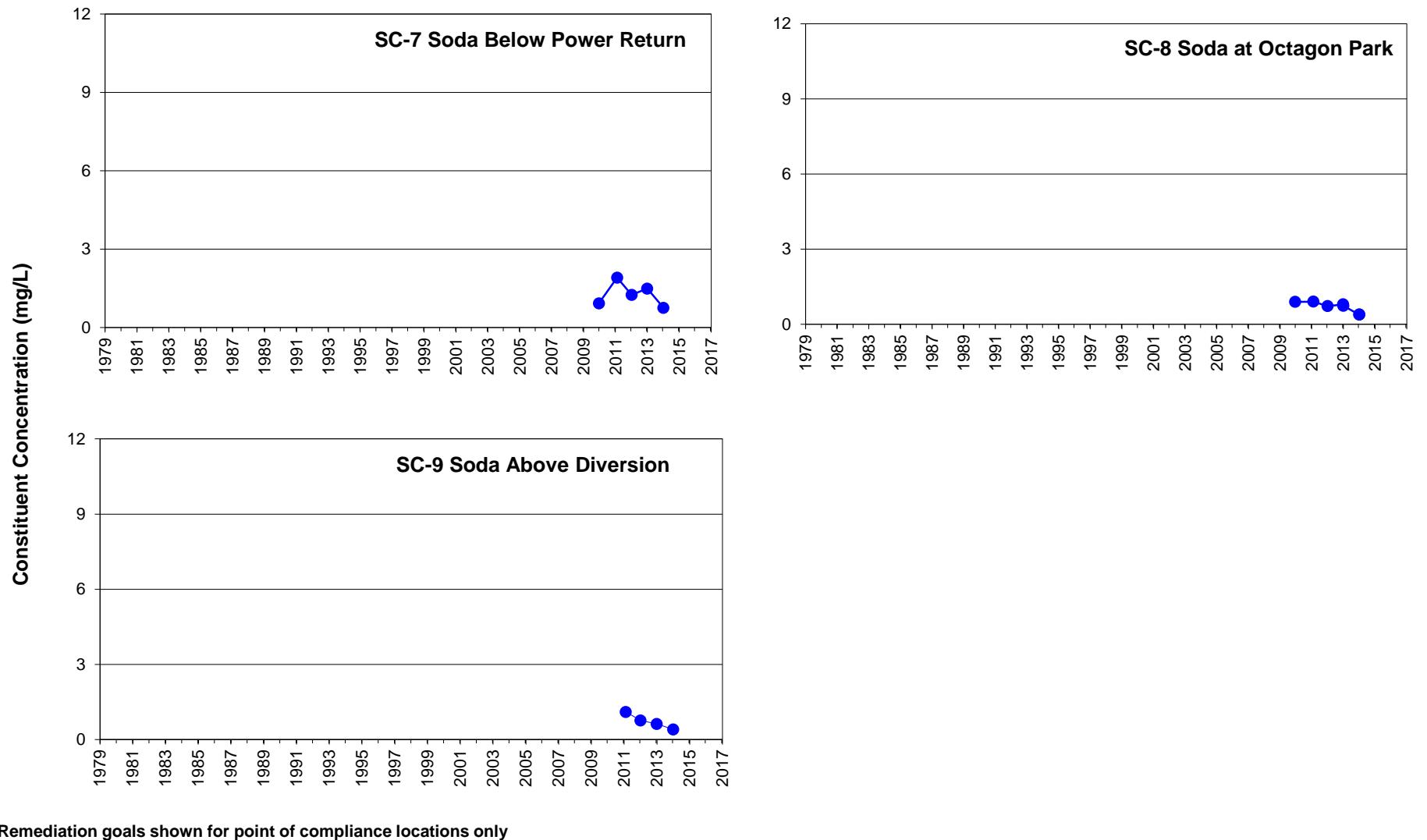


FIGURE D-7
NITRATE IN SODA CREEK - WEIR TO PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004

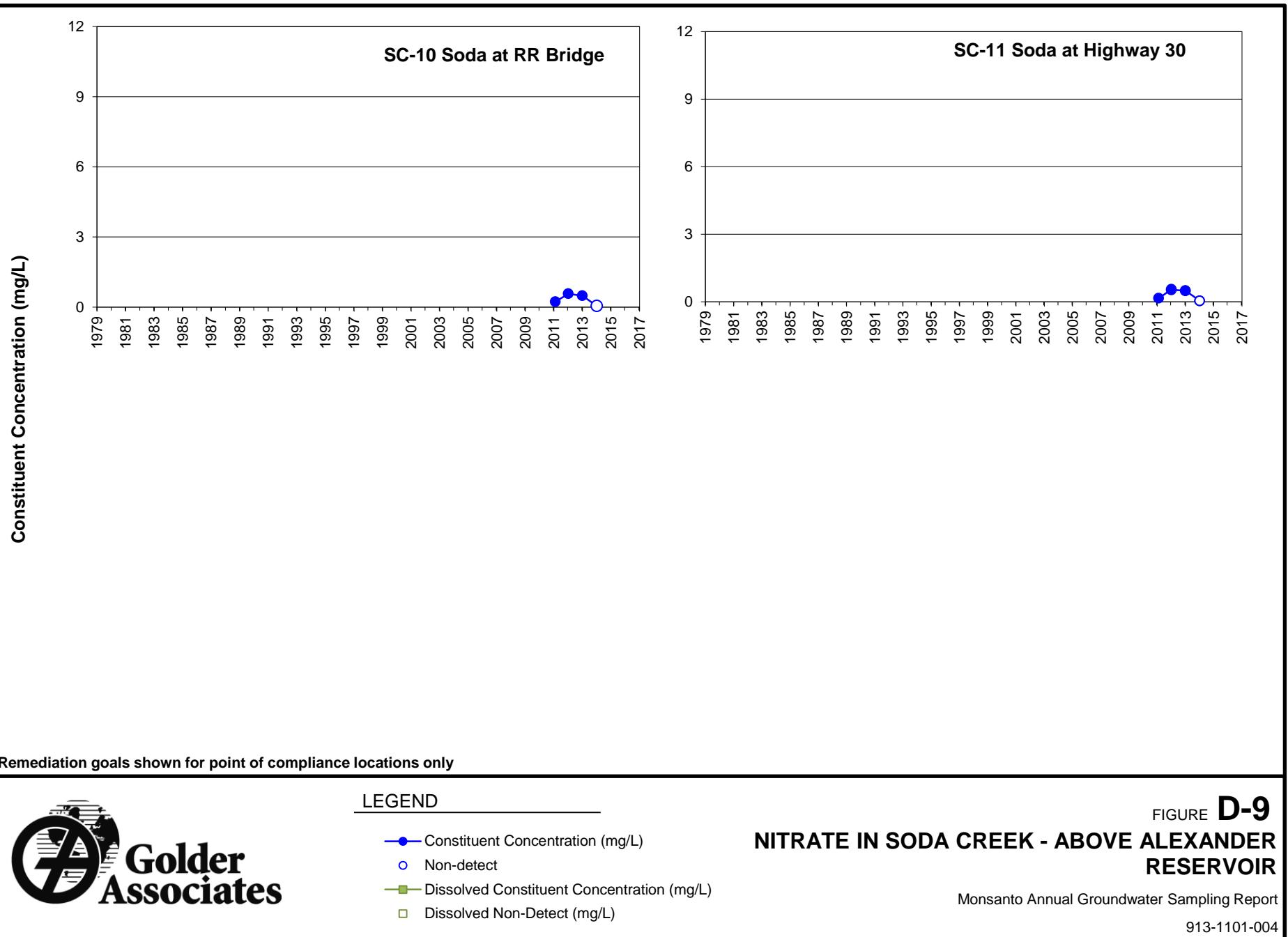


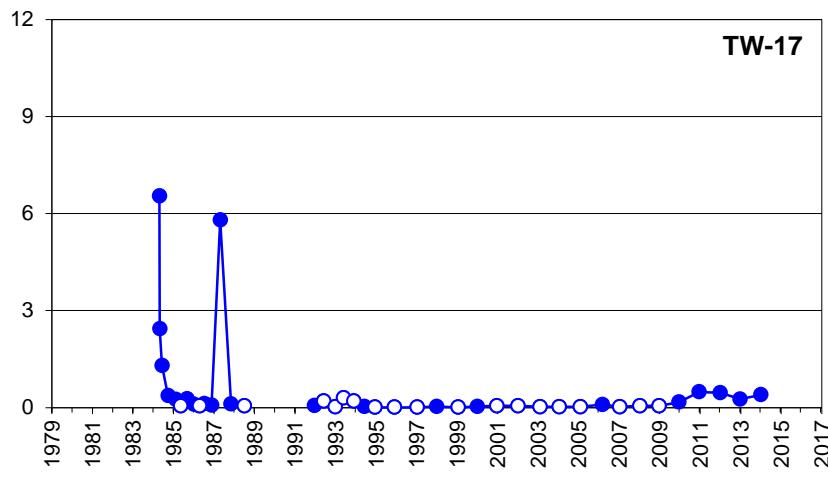
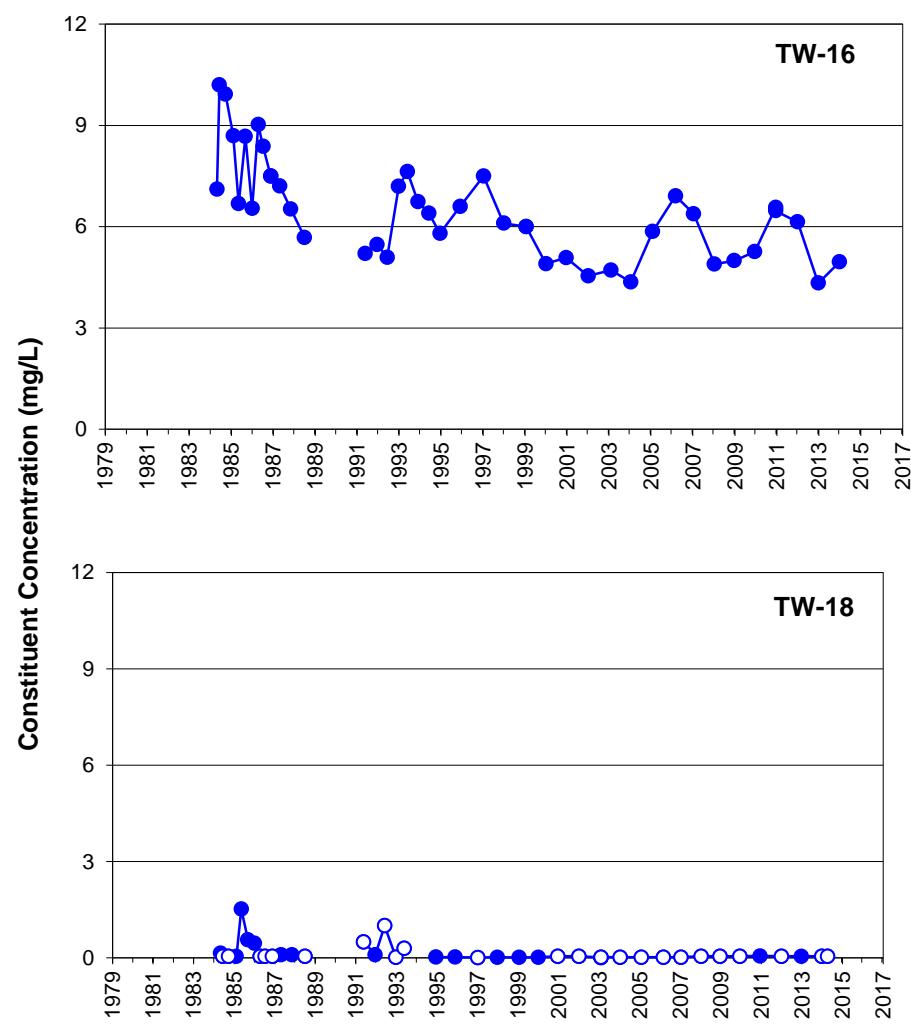
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects

FIGURE D-8
NITRATE IN SODA CREEK - BELOW PROPERTY LINE

Monsanto Annual Groundwater Sampling Report
913-1101-004





Remediation goals shown for point of compliance locations only



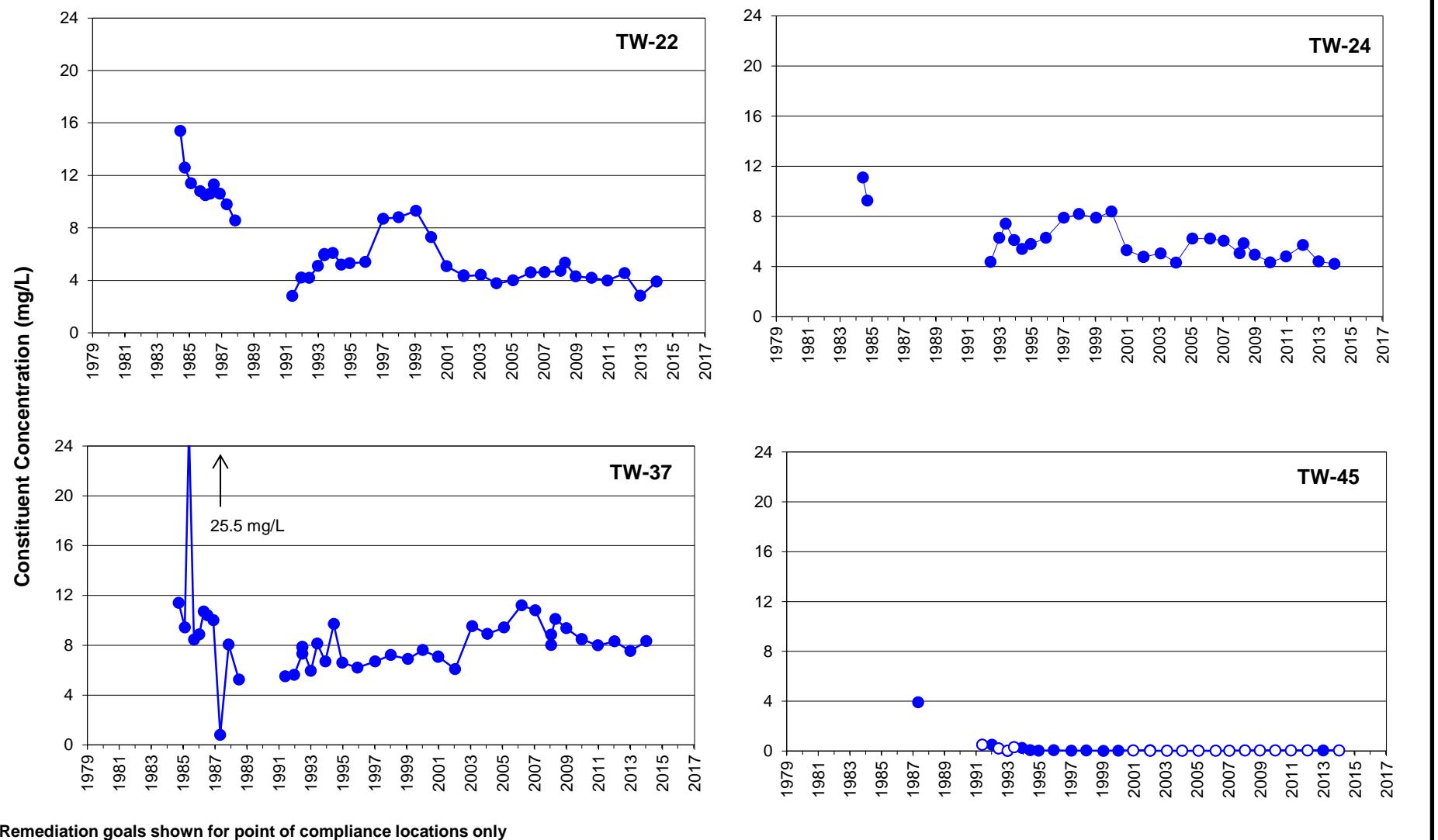
- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE D-10

NITRATE IN NW POND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



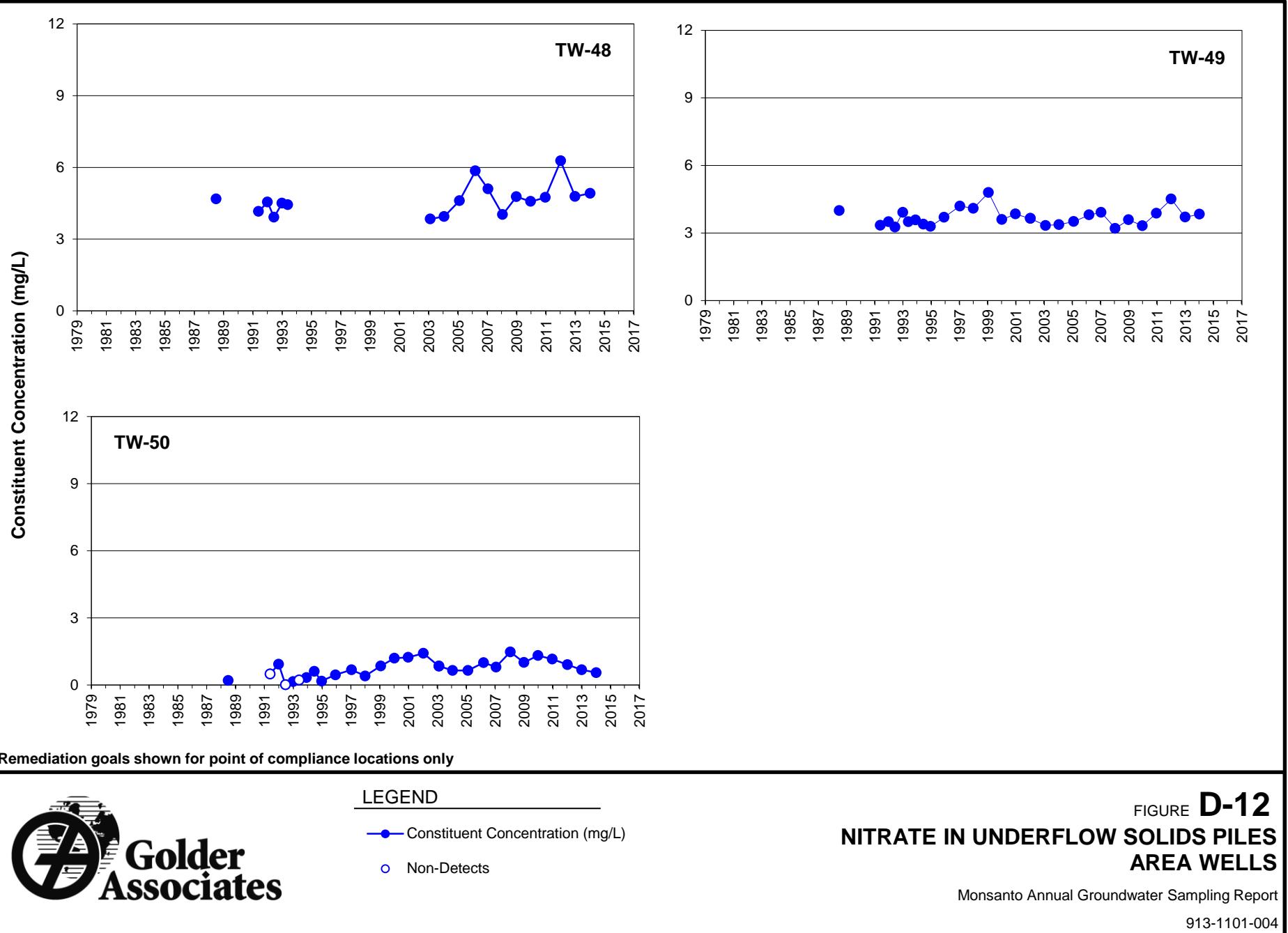
- LEGEND
- Constituent Concentration (mg/L)
 - Non-Detects

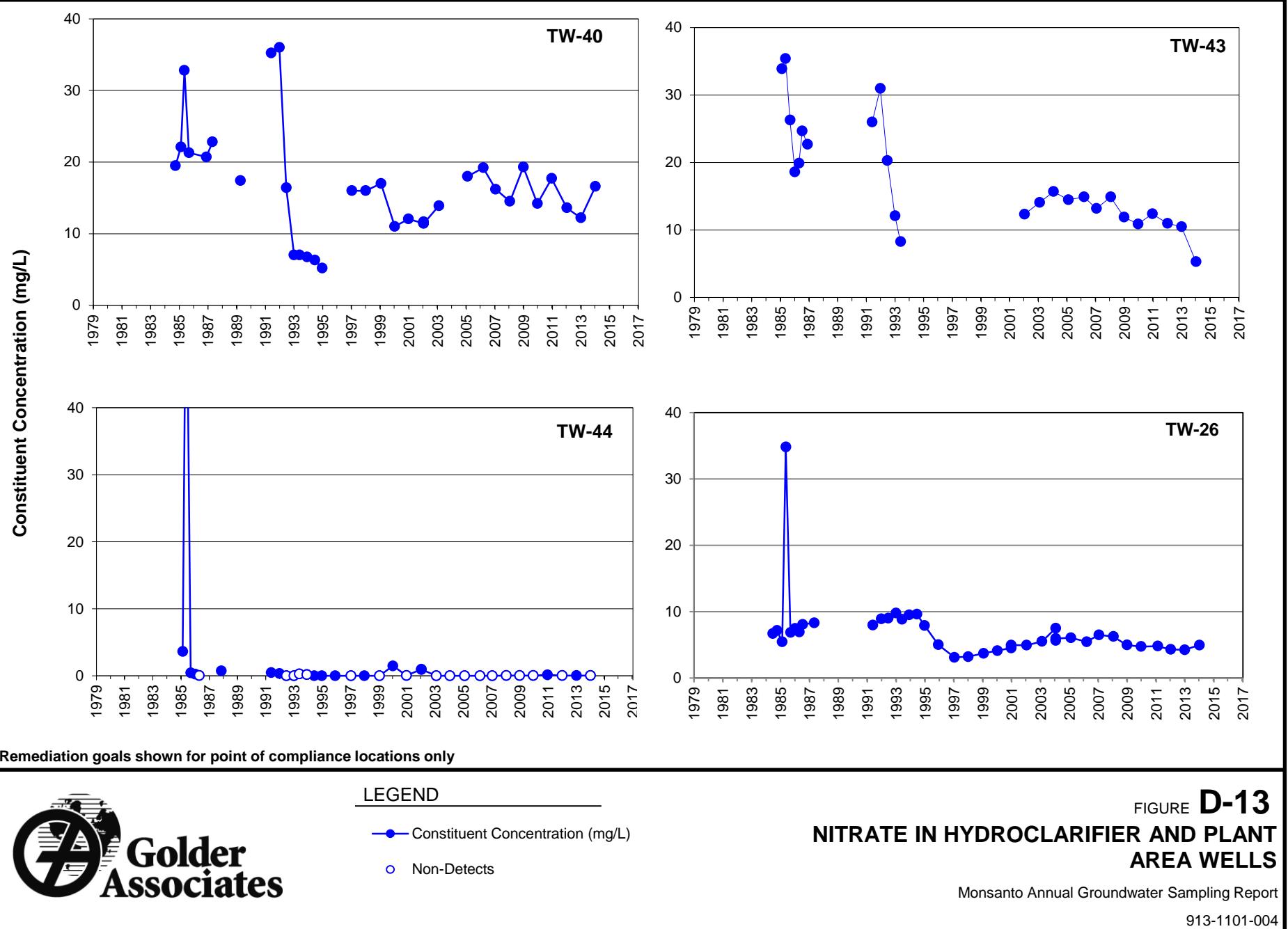
FIGURE D-11

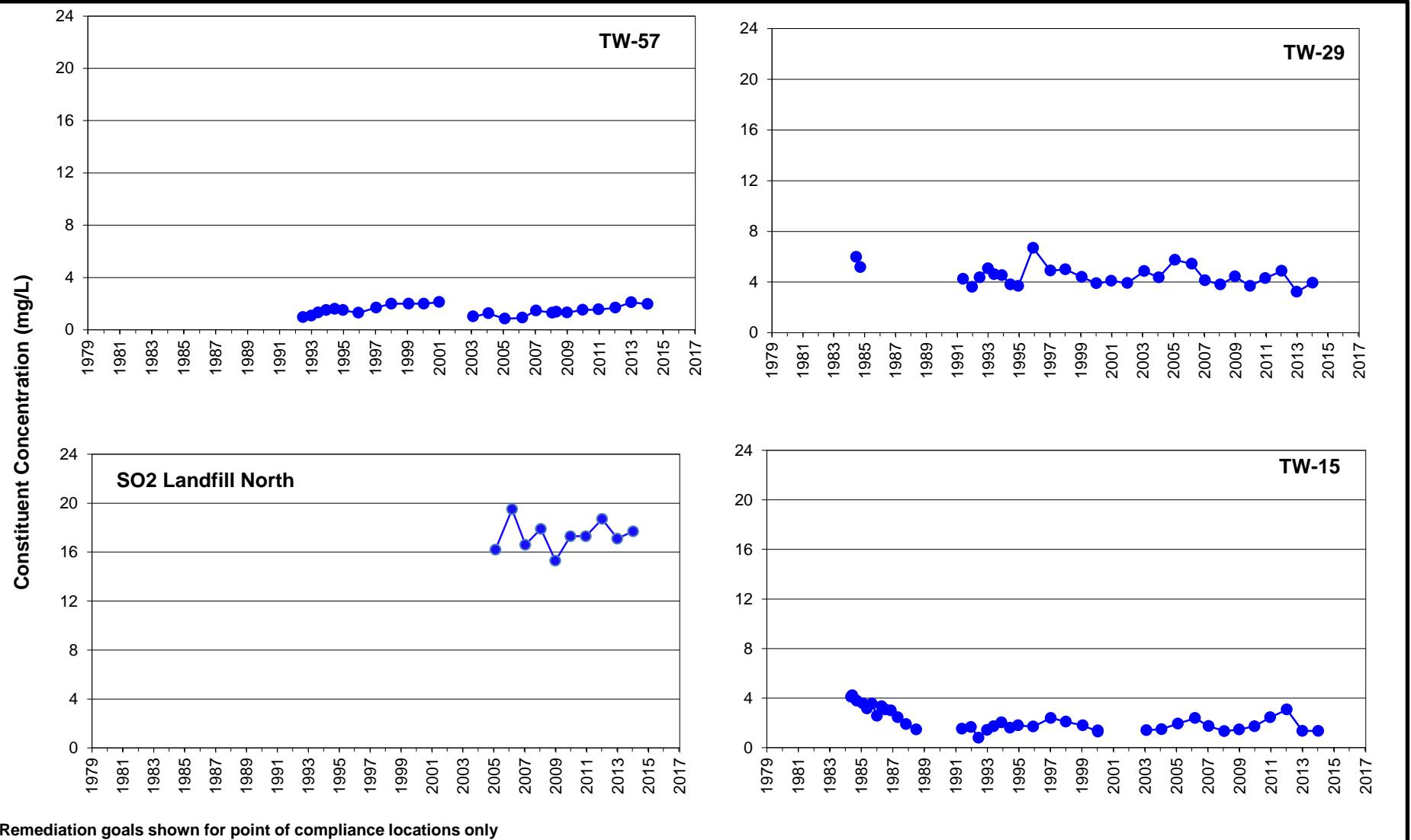
**NITRATE IN OLD UNDERFLOW
SOLIDS POND AREA WELLS**

Monsanto Annual Groundwater Sampling Report

913-1101-004







Remediation goals shown for point of compliance locations only



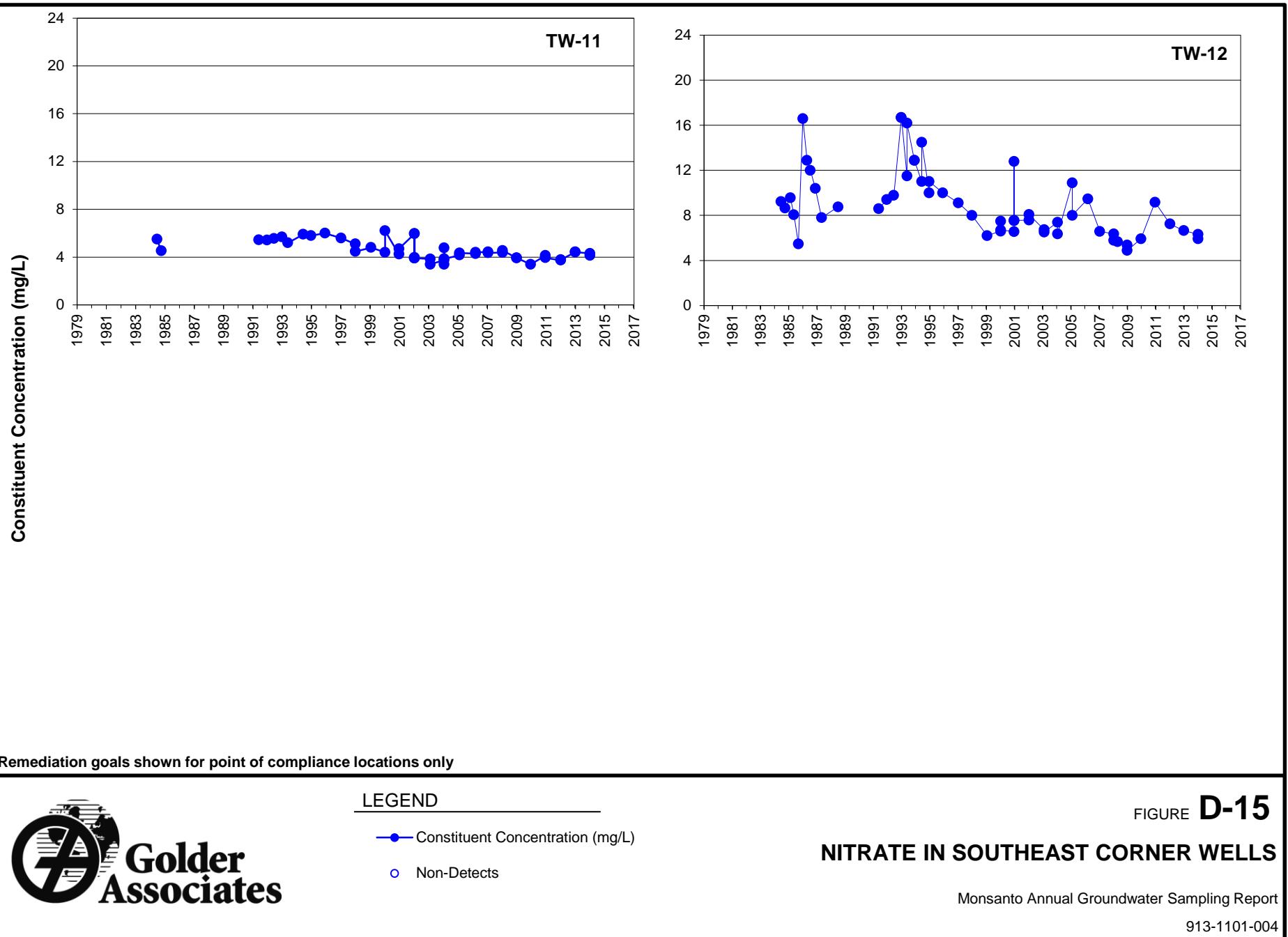
- LEGEND
- Constituent Concentration (mg/L)
 - Non-Detects

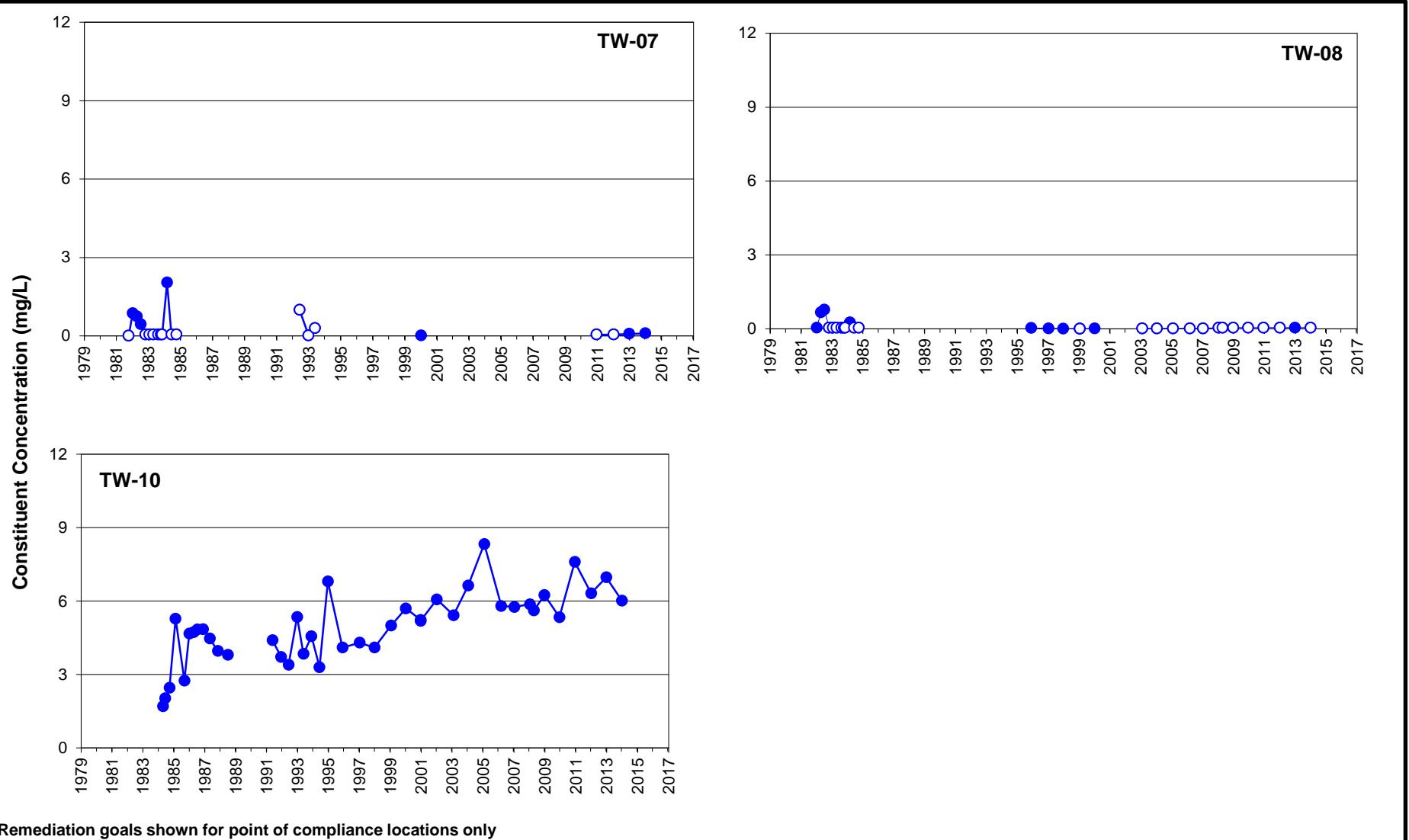
FIGURE D-14

NITRATE IN BACKGROUND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





LEGEND

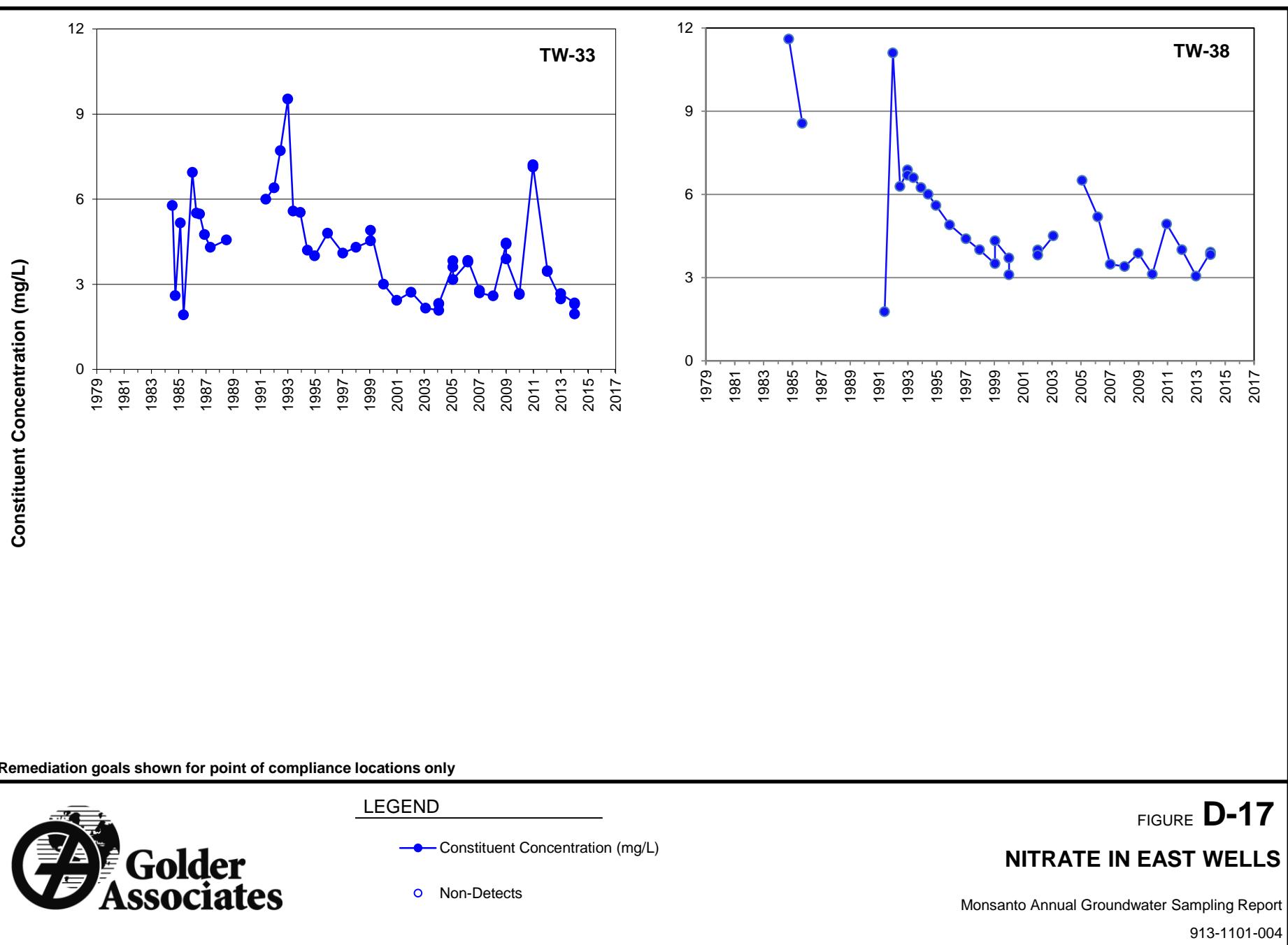
- Constituent Concentration (mg/L)
- Non-Detects

FIGURE D-16

NITRATE IN SOUTHWEST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

—●— Constituent Concentration (mg/L)

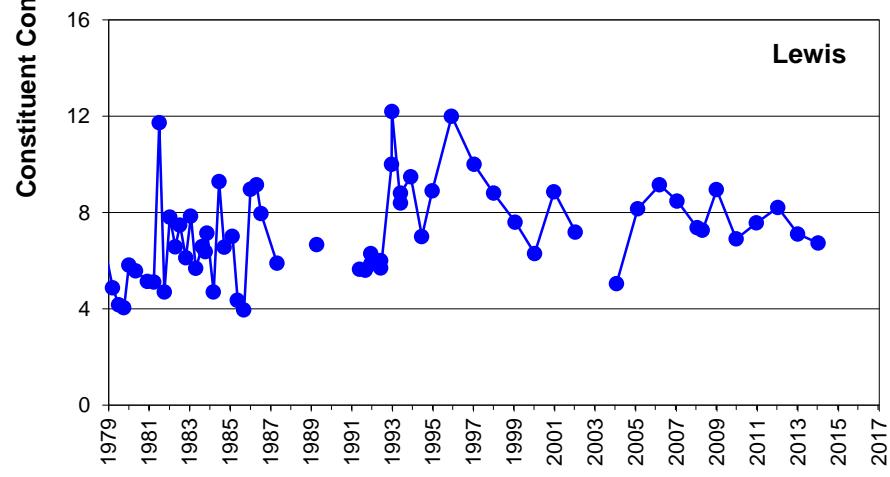
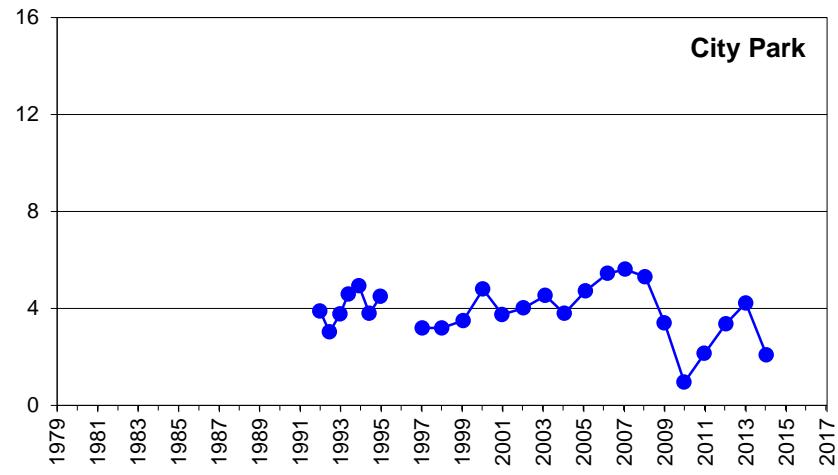
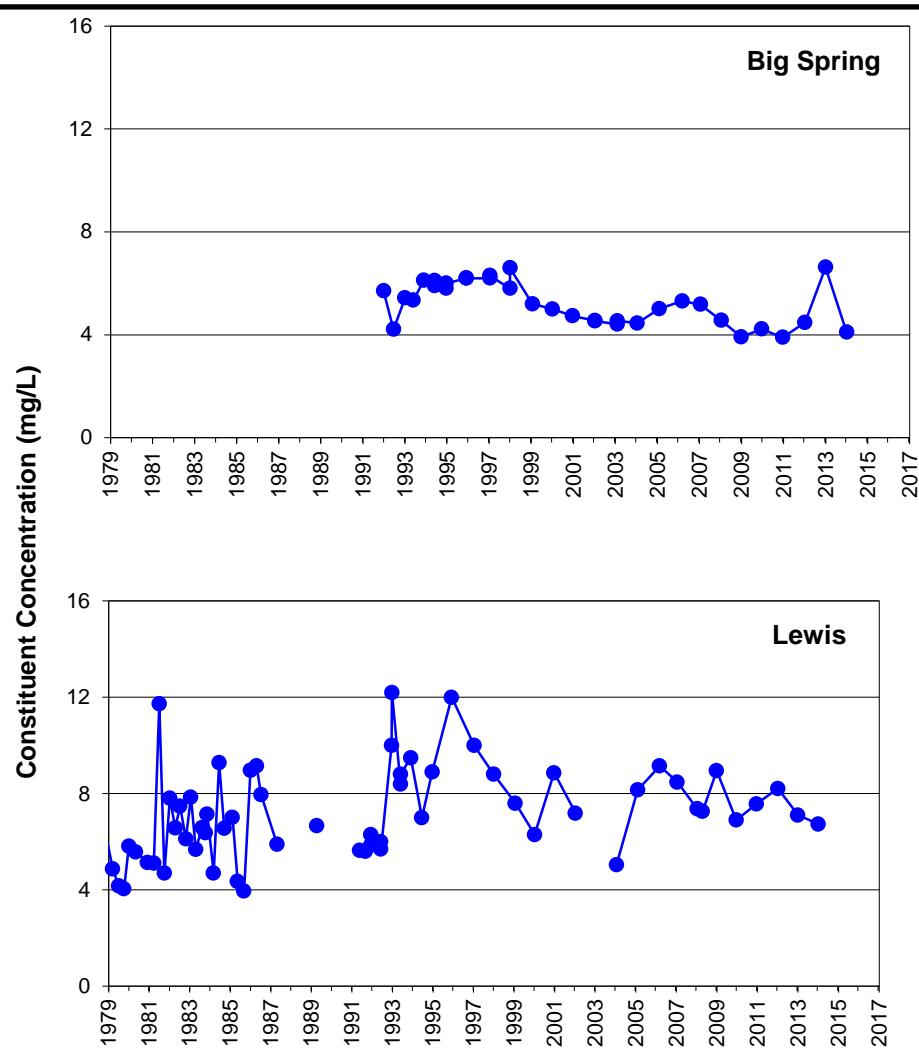
○ Non-Detects

FIGURE D-17

NITRATE IN EAST WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

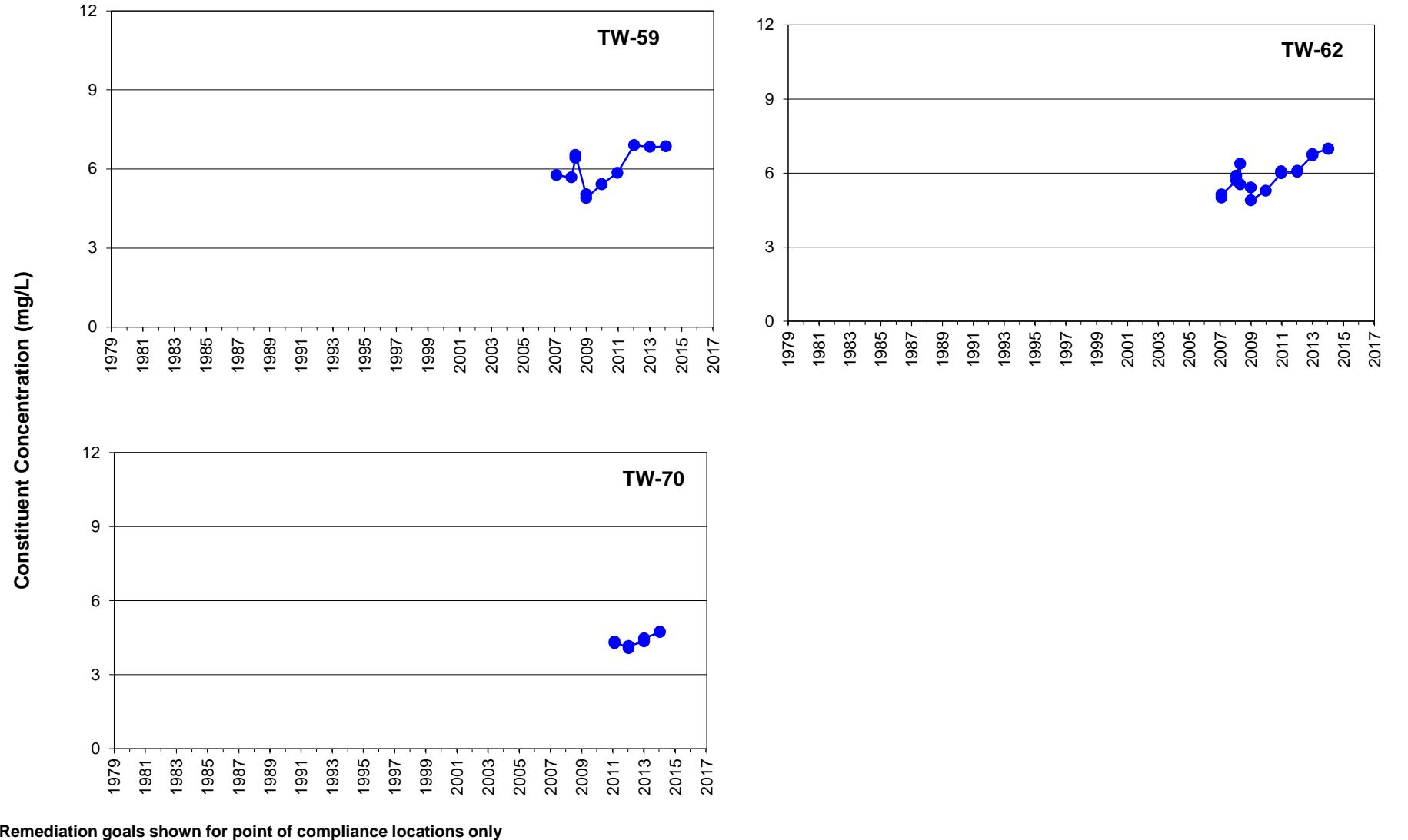
● Constituent Concentration (mg/L) ○ Non-Detects

FIGURE D-18

NITRATE IN OFFSITE WELLS AND SPRINGS

Monsanto Annual Groundwater Sampling Report

913-1101-004



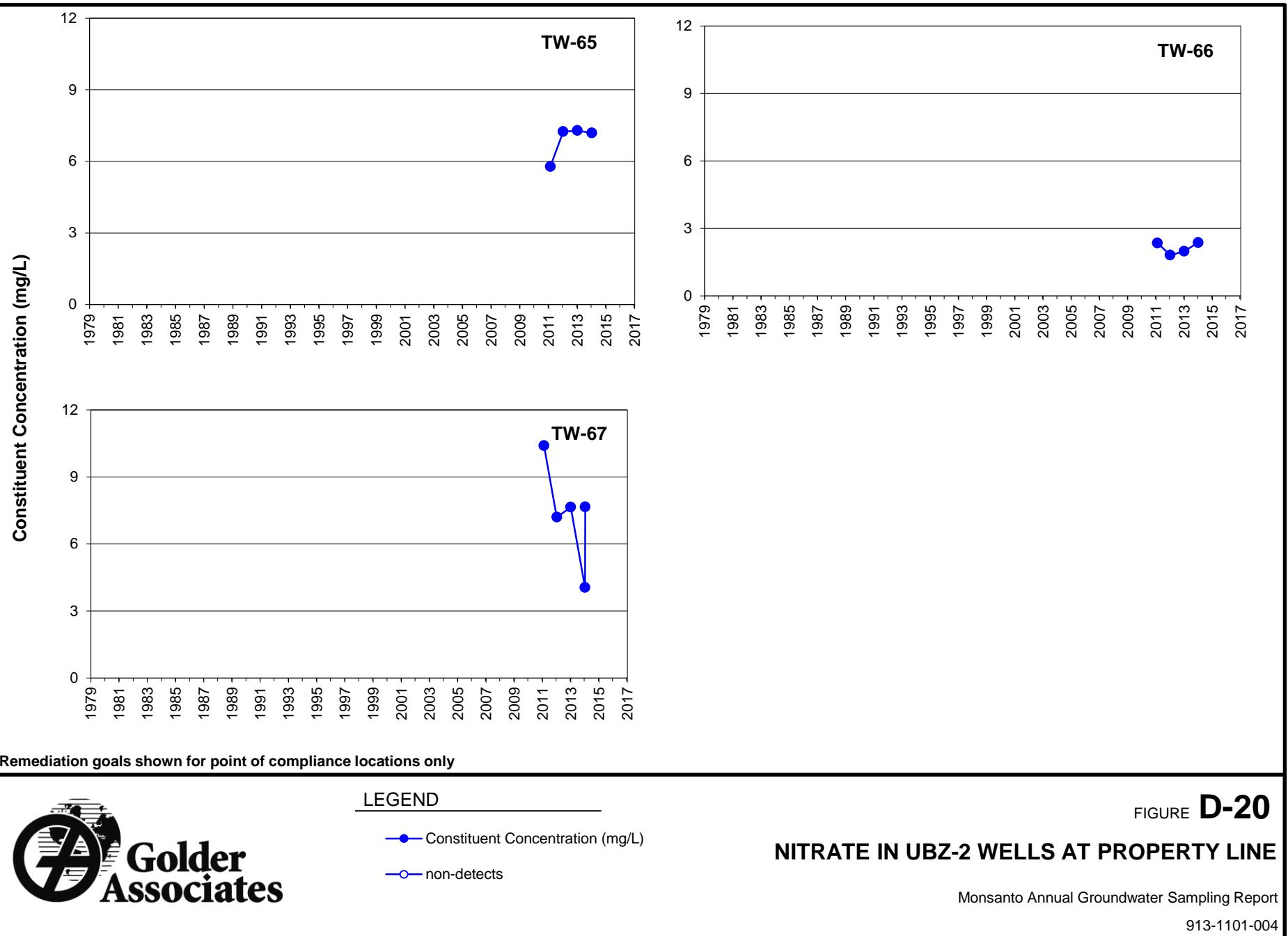
LEGEND

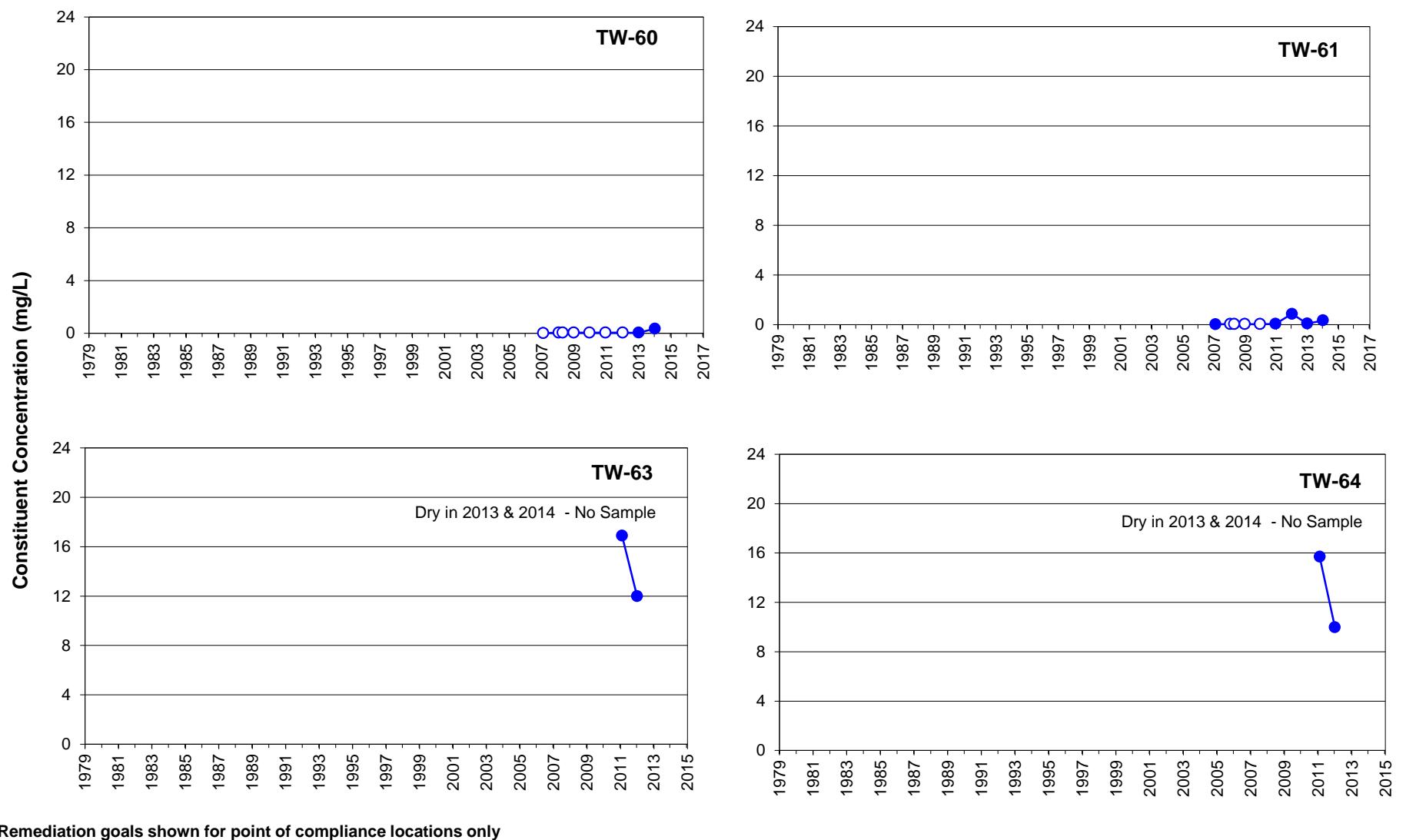
- Constituent Concentration (mg/L)
- non-detects

FIGURE D-19
NITRATE IN UBZ-2 WELLS SOUTH OF SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





LEGEND

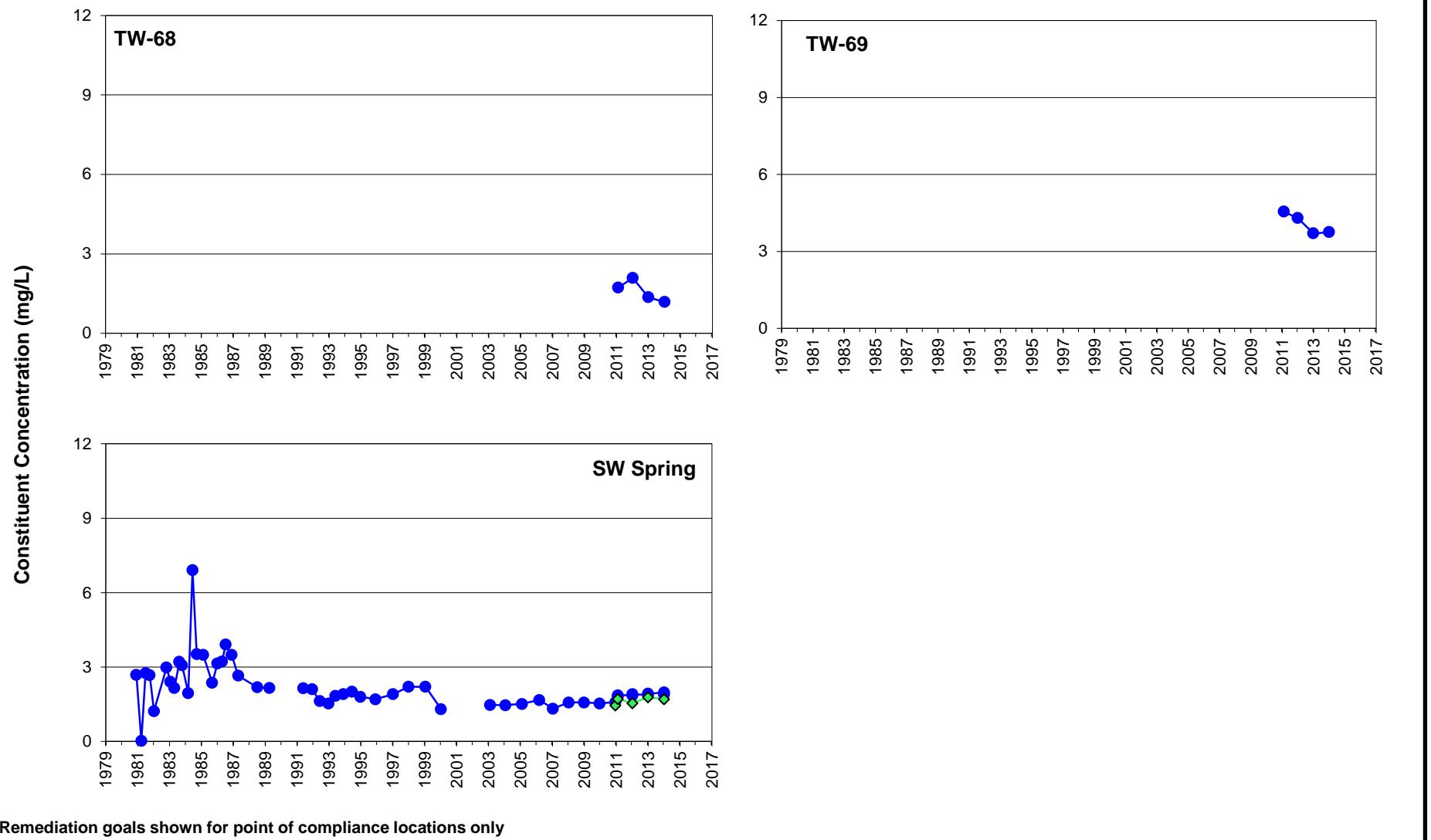
- Constituent Concentration (mg/L)
- non-detects

FIGURE D-21

NITRATE IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

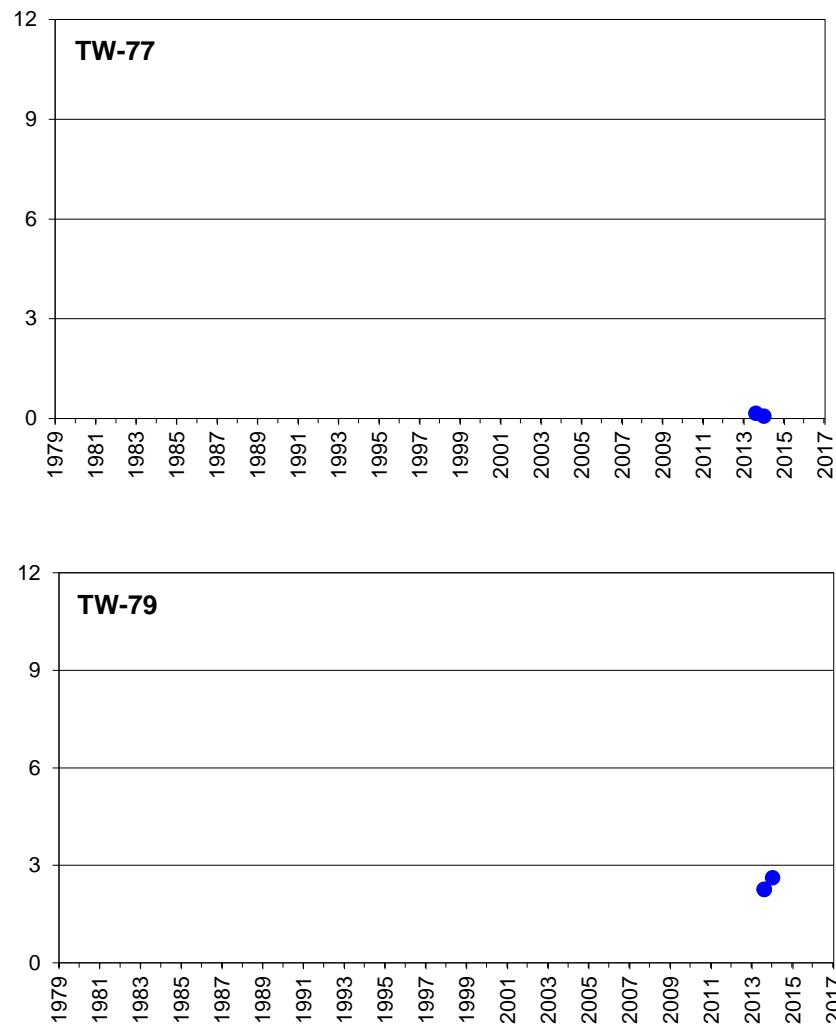
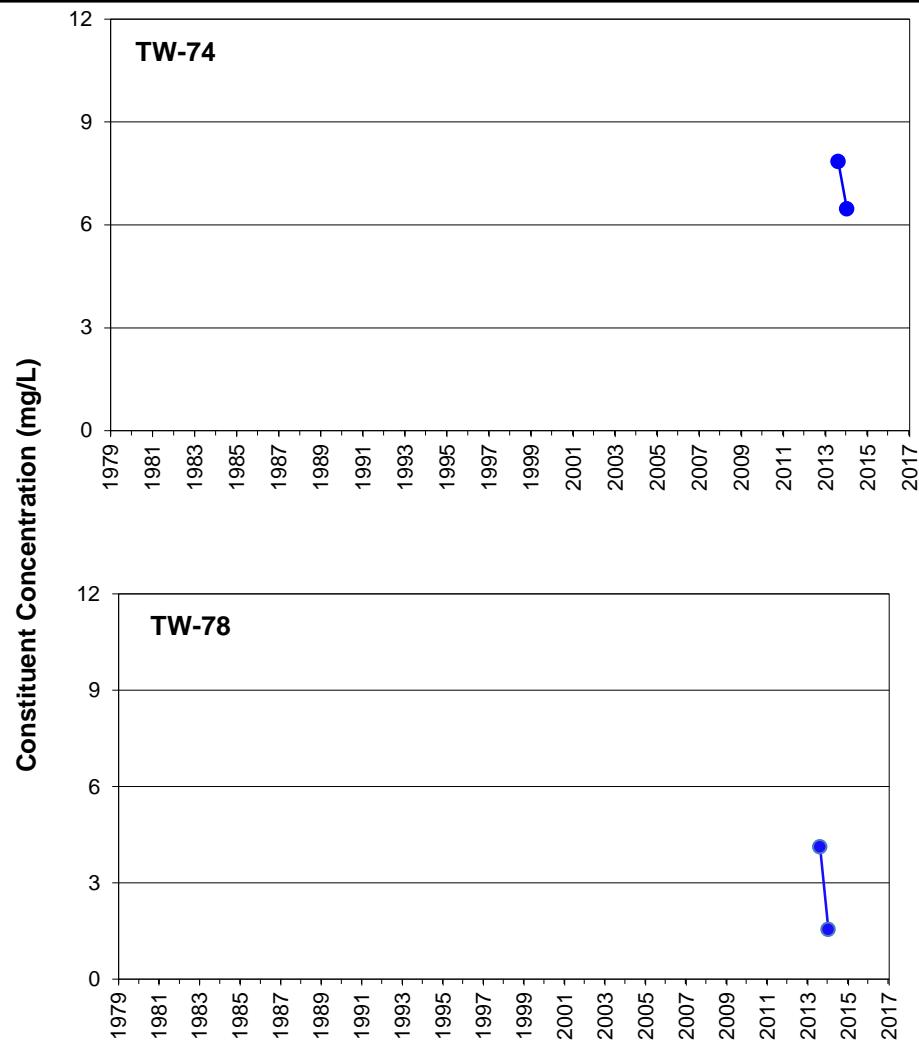
- Constituent Concentration (mg/L)
- Non-detects
- ◆ SW Spring above confluence with Soda Creek

FIGURE D-22

NITRATE IN UBZ-1 WELLS AND SPRINGS WEST OF THE PLANT

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

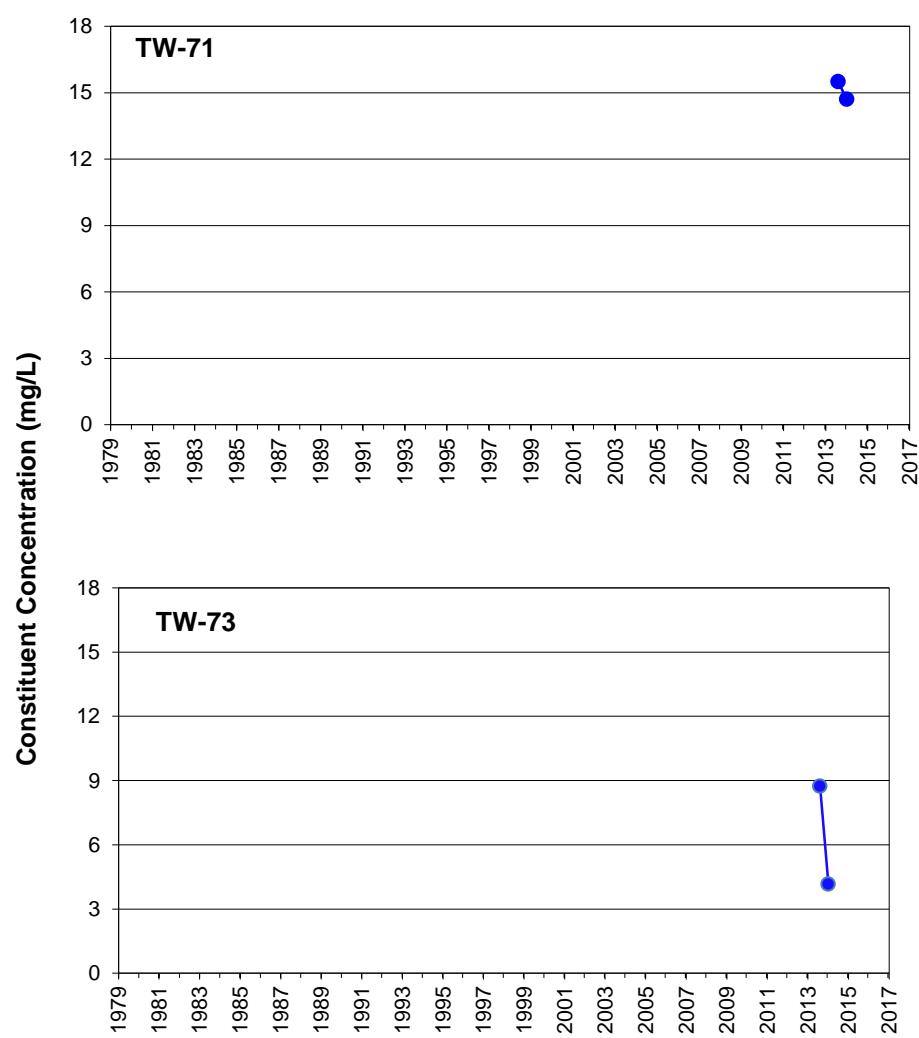


- LEGEND
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE D-23
NITRATE IN UBZ-4 TAILINGS POND
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

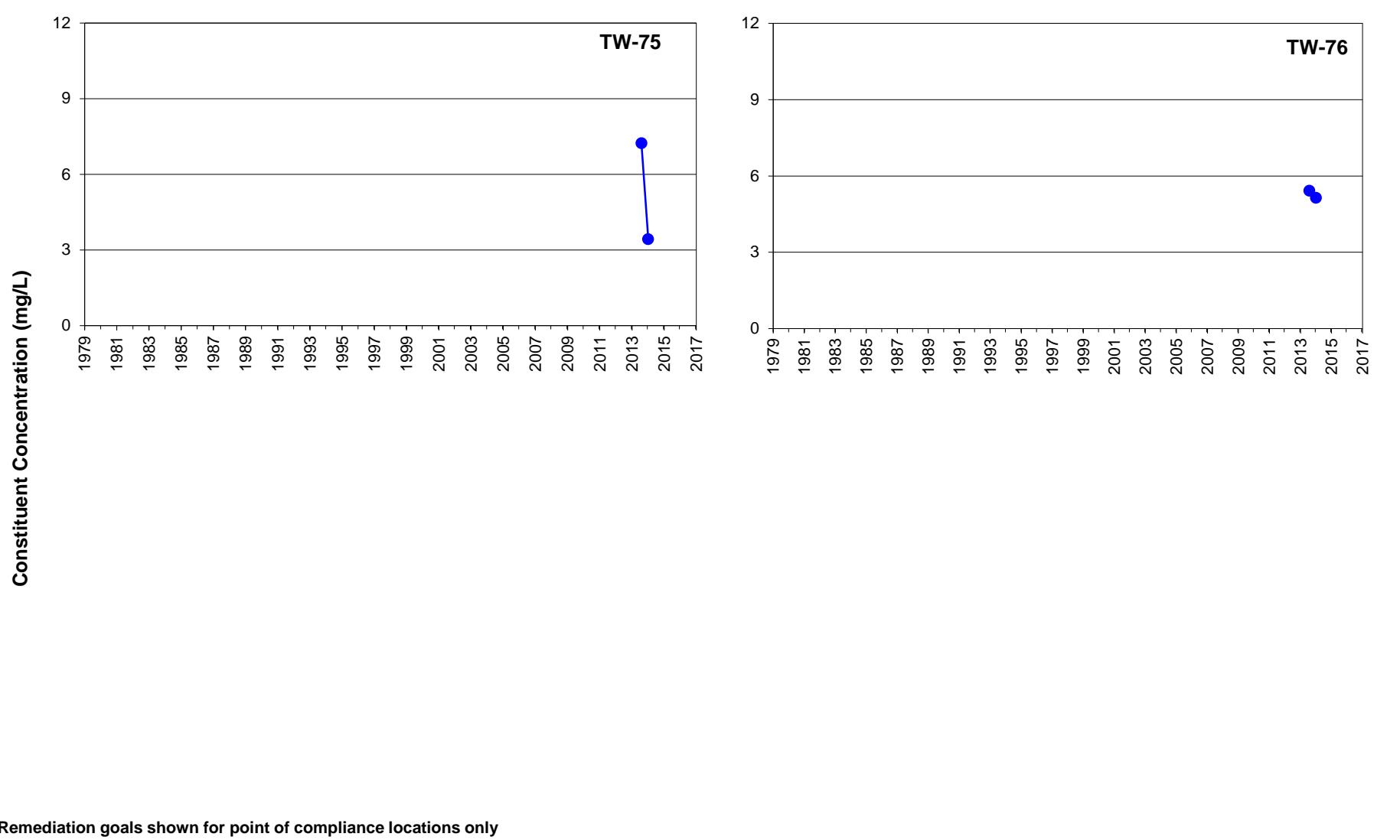


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE D-24
NITRATE IN UBZ-2 OLD UFS PONDS SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

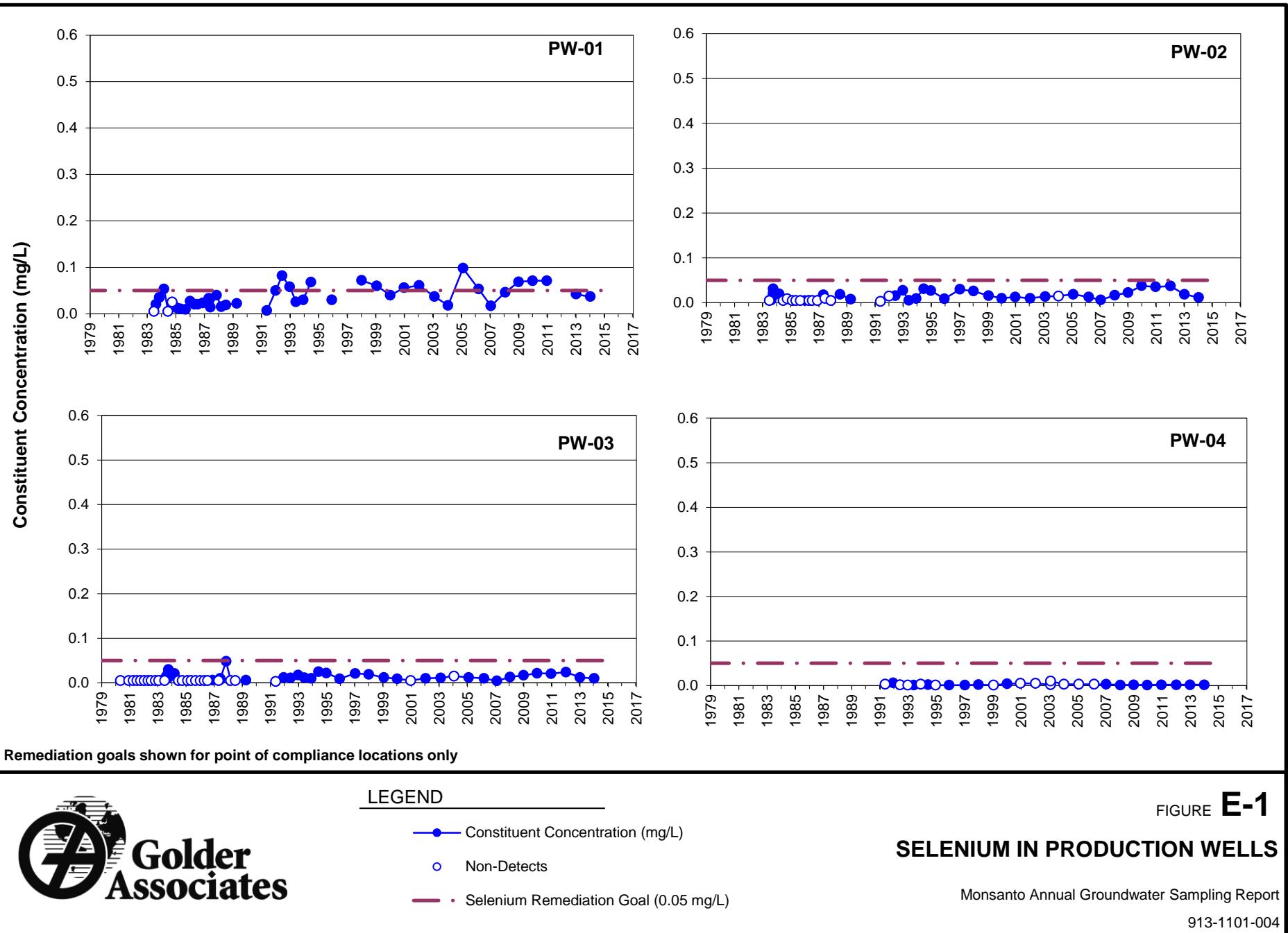
- Constituent Concentration (mg/L)
- Non-Detects

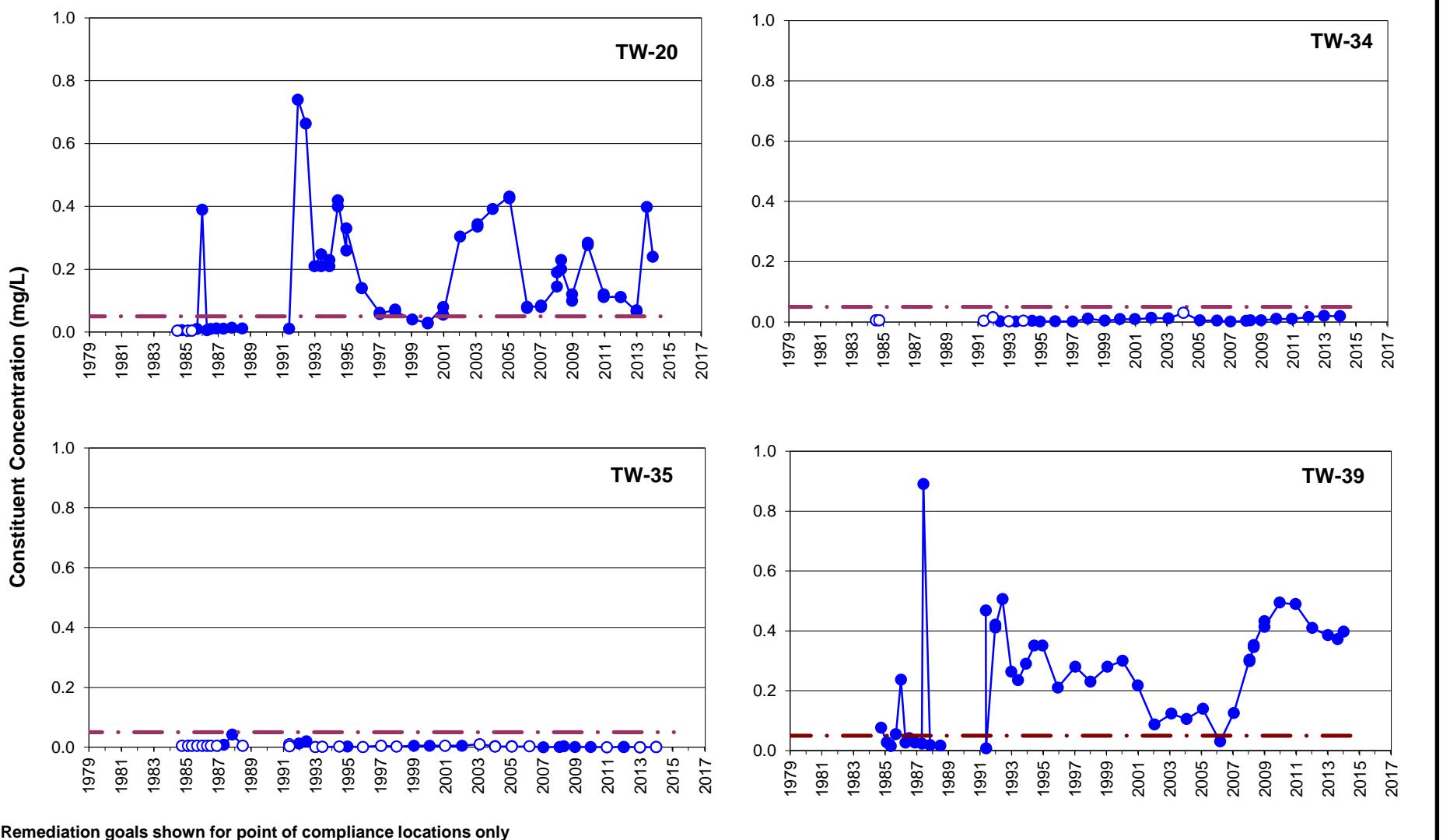
FIGURE D-25
NITRATE IN UBZ-2 TAILINGS POND
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004

APPENDIX E
TIME-HISTORY GRAPHS FOR SELENIUM





LEGEND

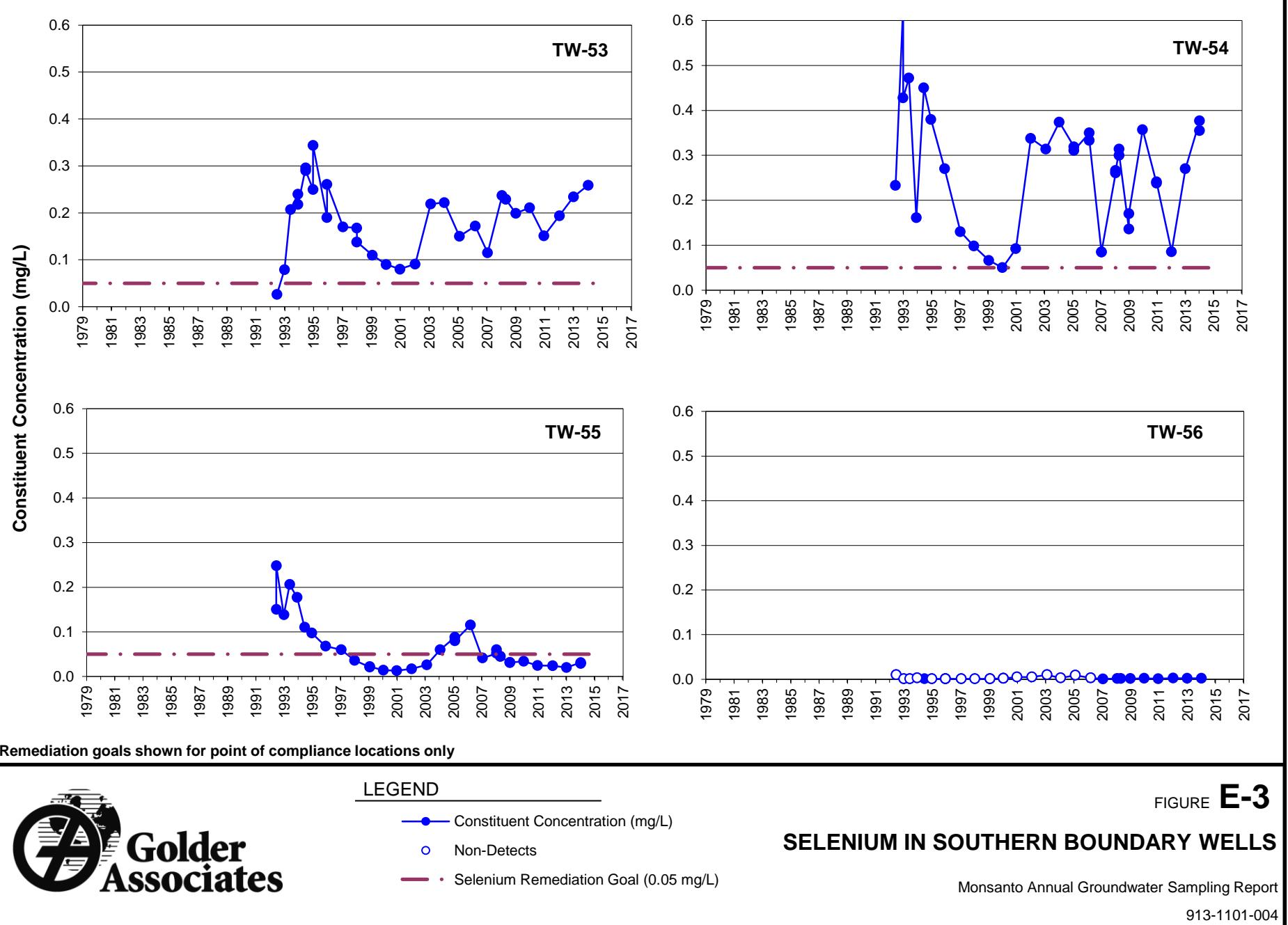
- Constituent Concentration (mg/L)
- Non-Detects
- Selenium Remediation Goal (0.05 mg/L)

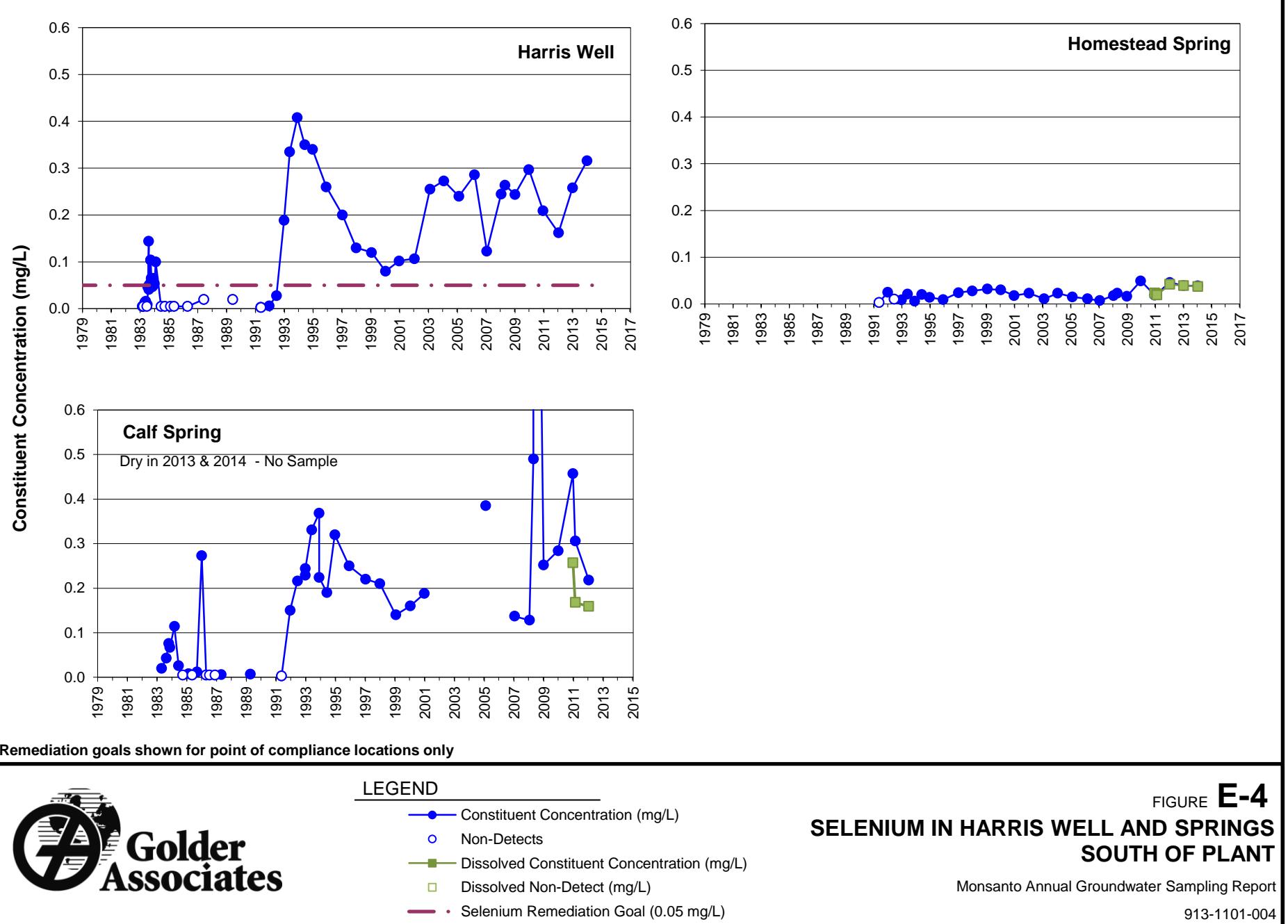
FIGURE E-2

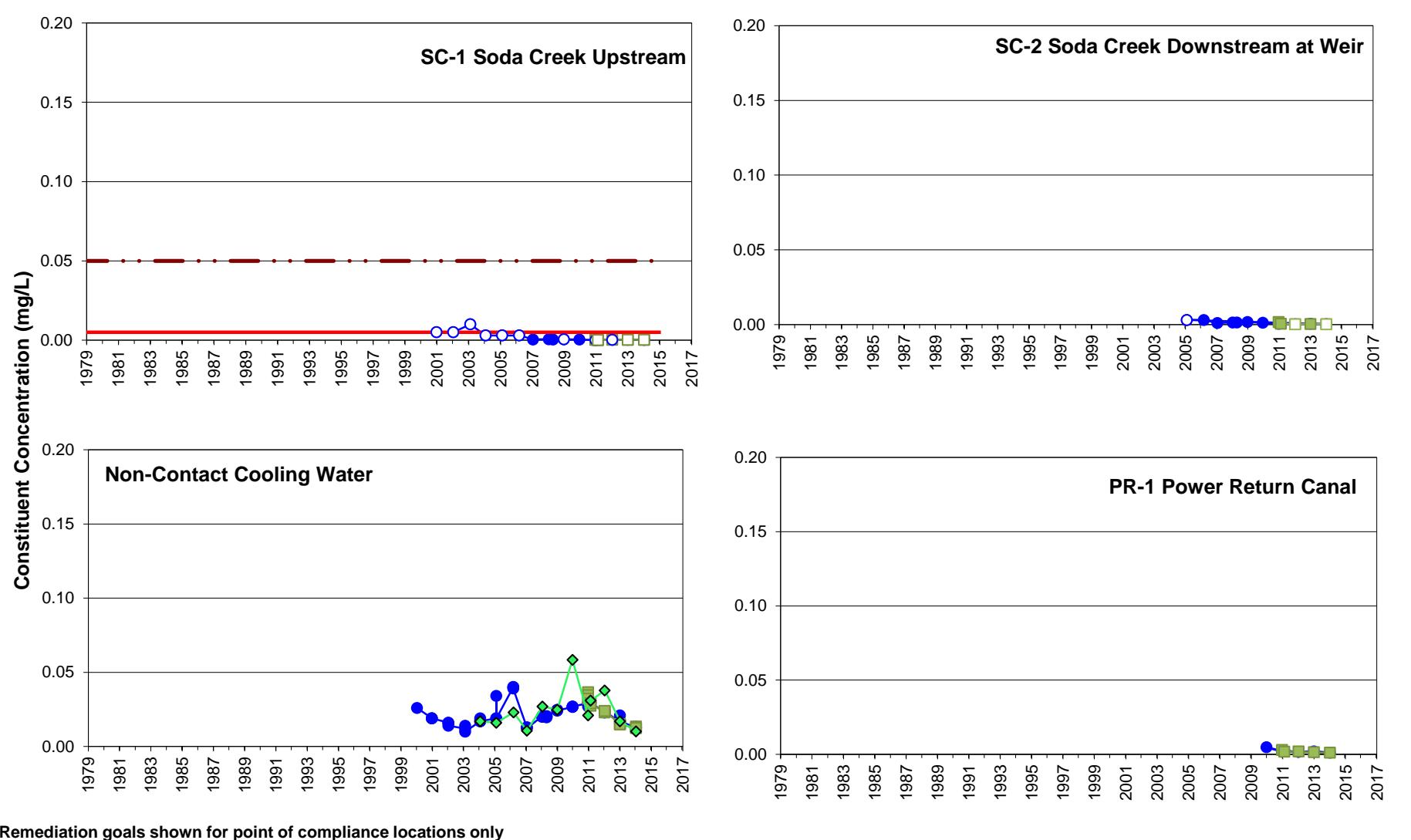
SELENIUM IN SOUTH FENCELINE WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





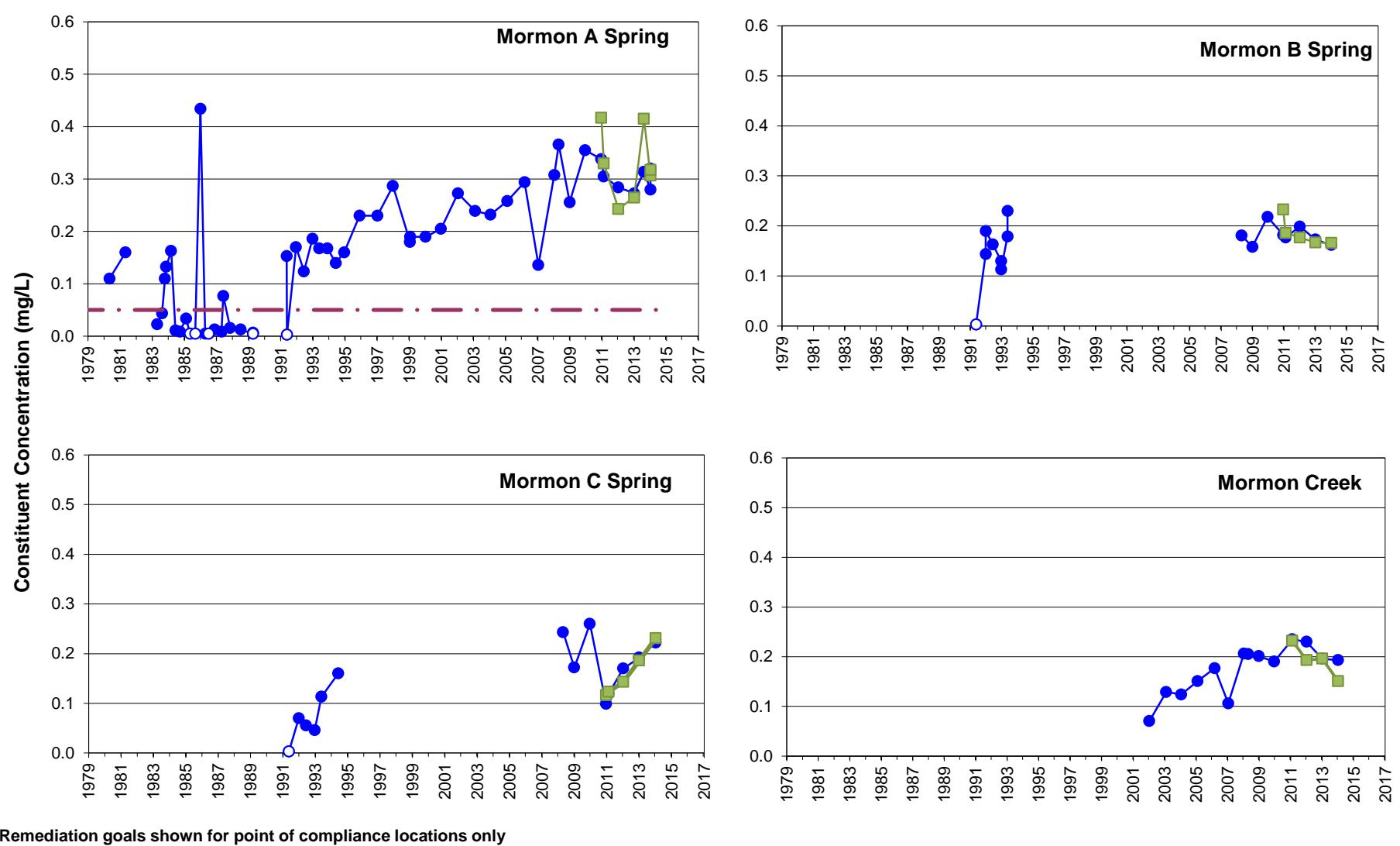


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Dissolved Constituent Concentration (mg/L)
 - Dissolved Non-Detect (mg/L)
 - Selenium Remediation Goal (0.05 mg/L)
 - ◆ Pond Inlet
 - Chronic Selenium Aquatic Standard (0.005 mg/L)

FIGURE E-5
SELENIUM IN SODA CREEK AND NON-CONTACT COOLING WATER DISCHARGE

Monsanto Annual Groundwater Sampling Report

913-1101-004

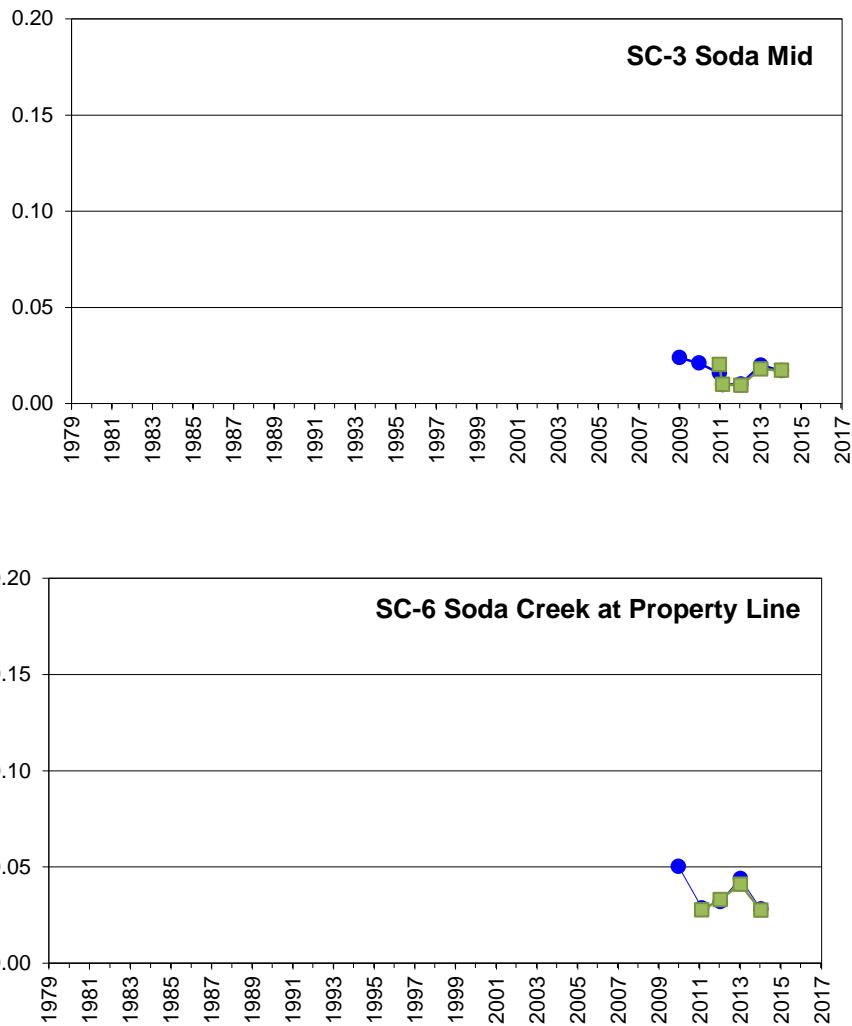
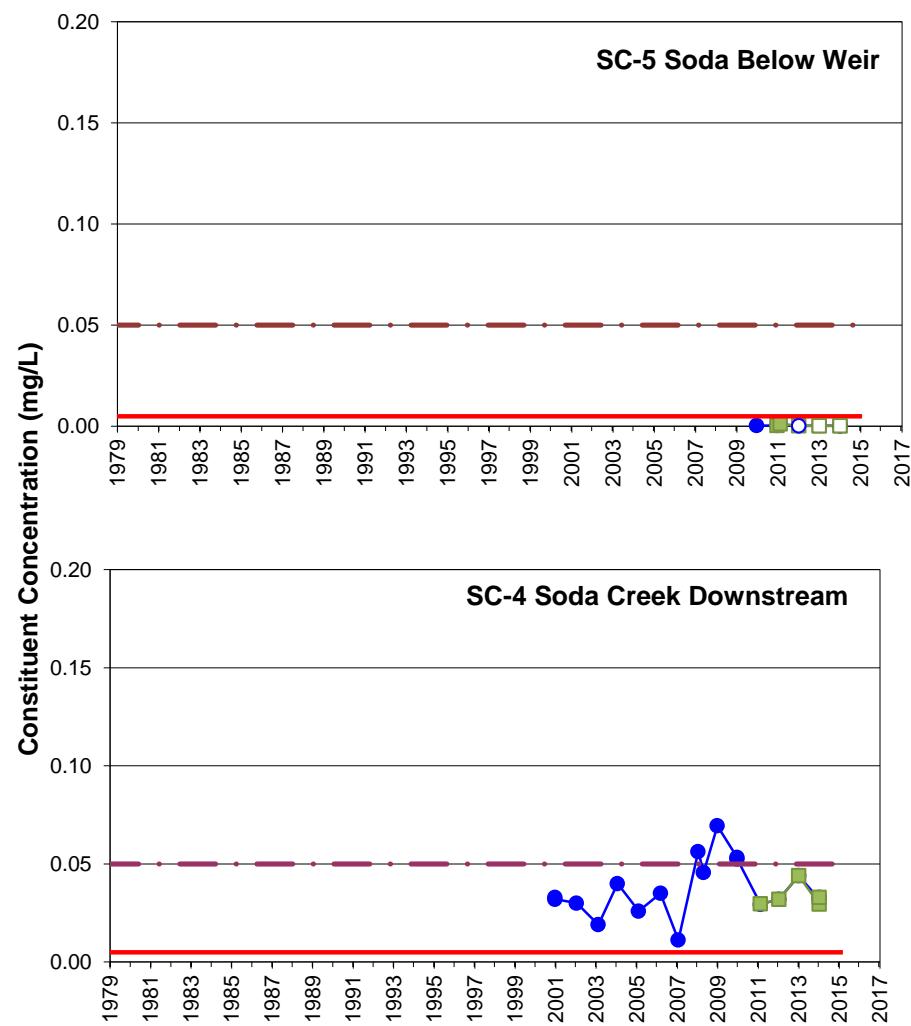


LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)
- Selenium Remediation Goal (0.05 mg/L)

FIGURE E-6
SELENIUM IN MORMON A, B, AND C SPRINGS
AND MORMON CREEK

Monsanto Annual Groundwater Sampling Report
913-1101-004



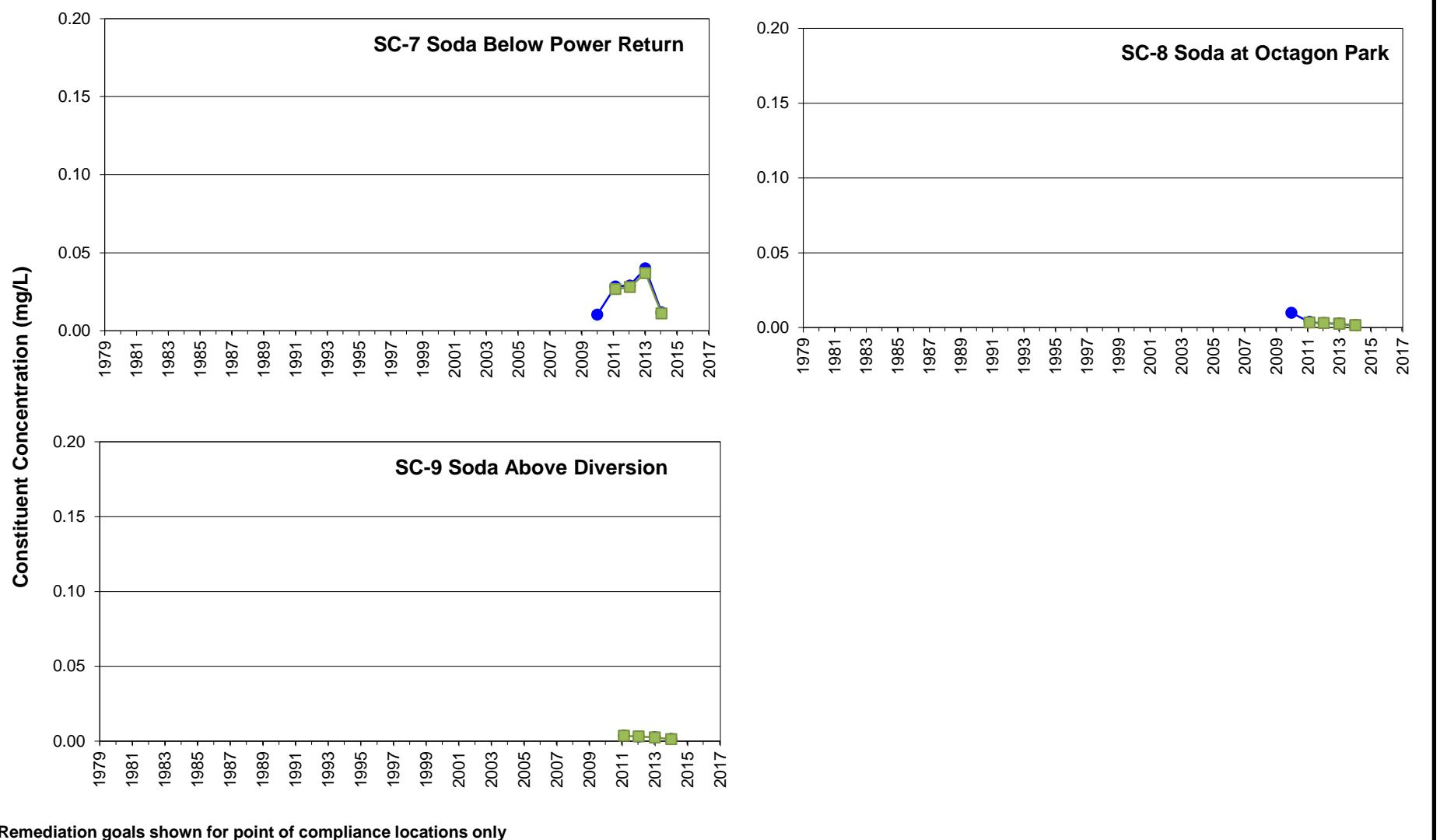
Remediation goals shown for point of compliance locations only



- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects
 - Dissolved Constituent Concentration (mg/L)
 - Dissolved Non-Detect (mg/L)
 - Selenium Remediation Goal (0.05 mg/L)
 - Chronic Selenium Aquatic Standard (0.005 mg/L)

FIGURE E-7
SELENIUM IN SODA CREEK - WEIR TO PROPERTY LINE

Monsanto Annual Groundwater Sampling Report
913-1101-004

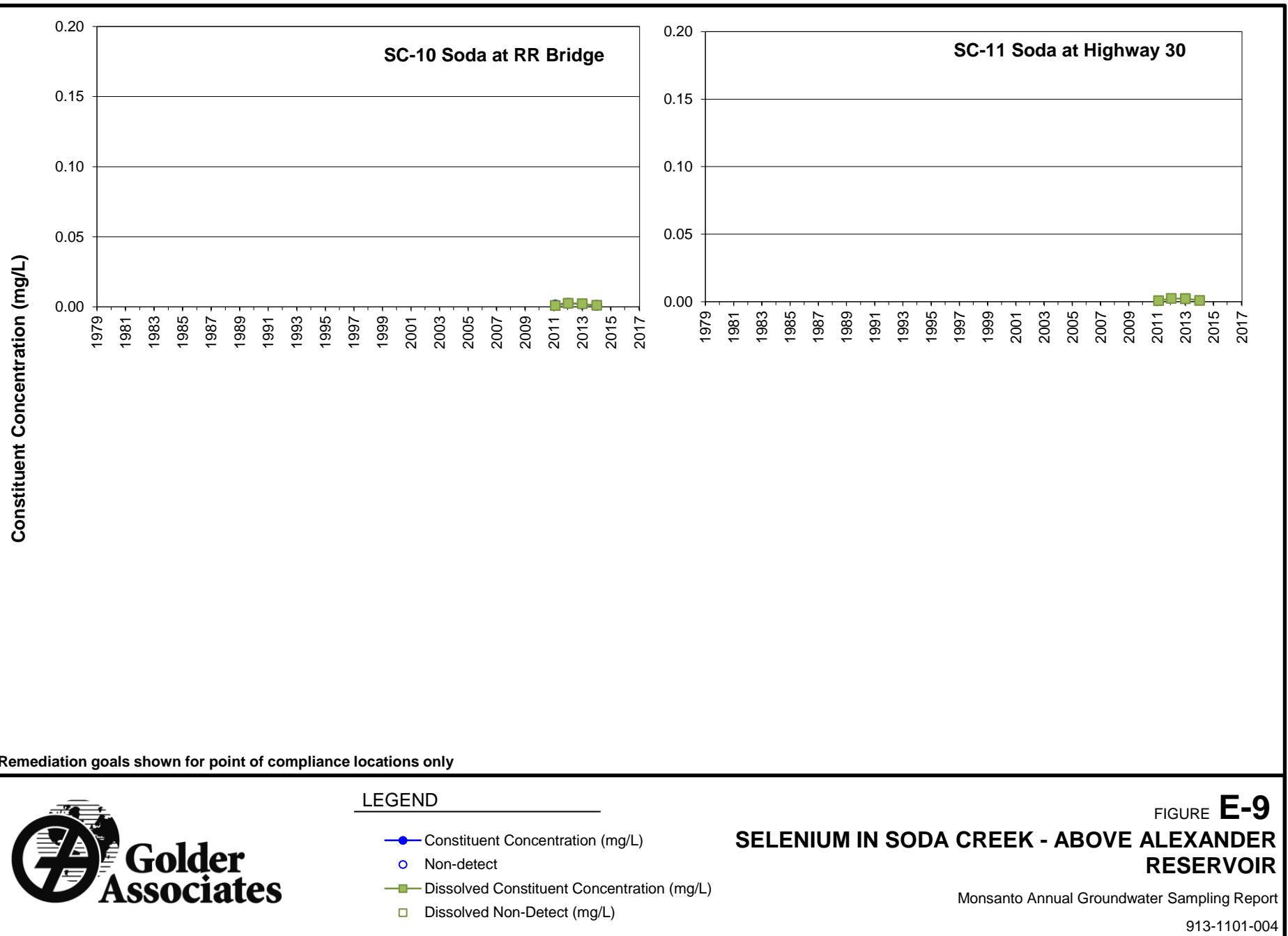


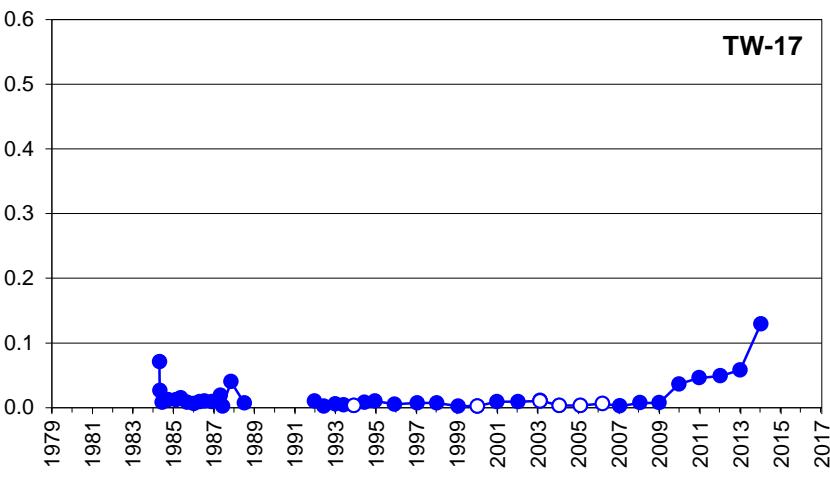
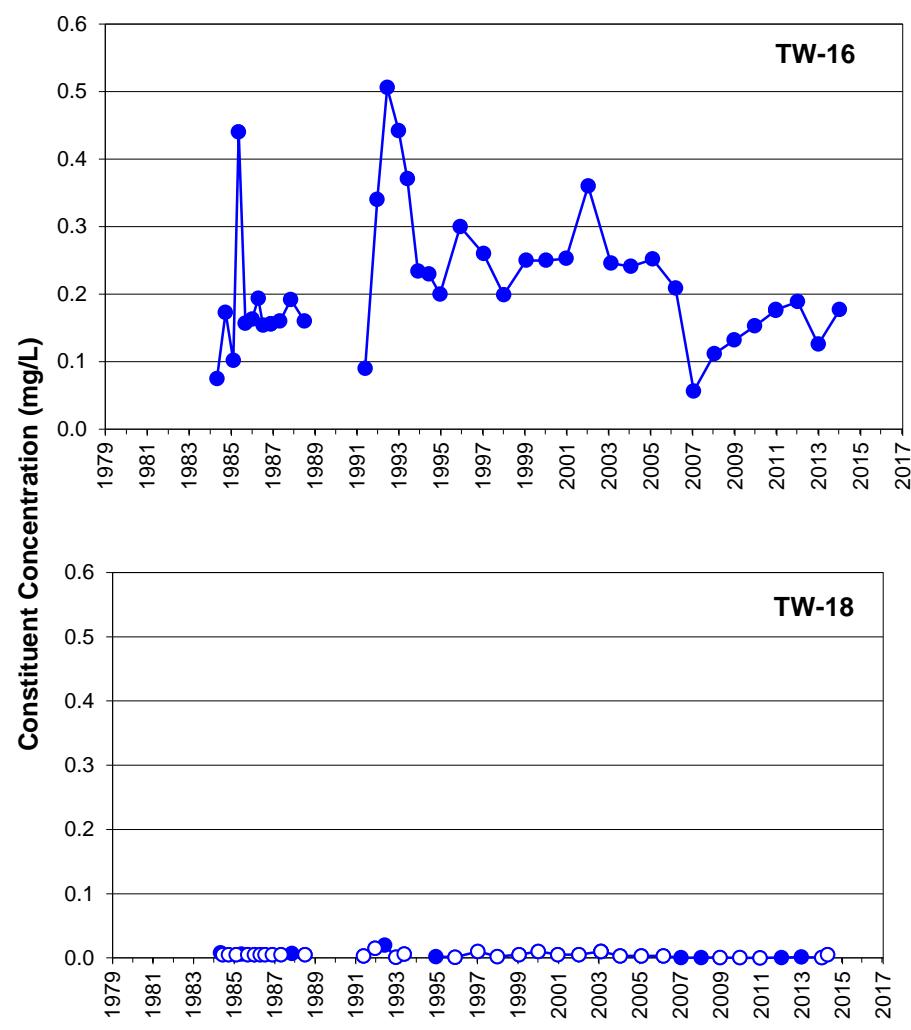
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

FIGURE E-8
SELENIUM IN SODA CREEK - BELOW PROPERTY LINE

Monsanto Annual Groundwater Sampling Report
913-1101-004





Remediation goals shown for point of compliance locations only



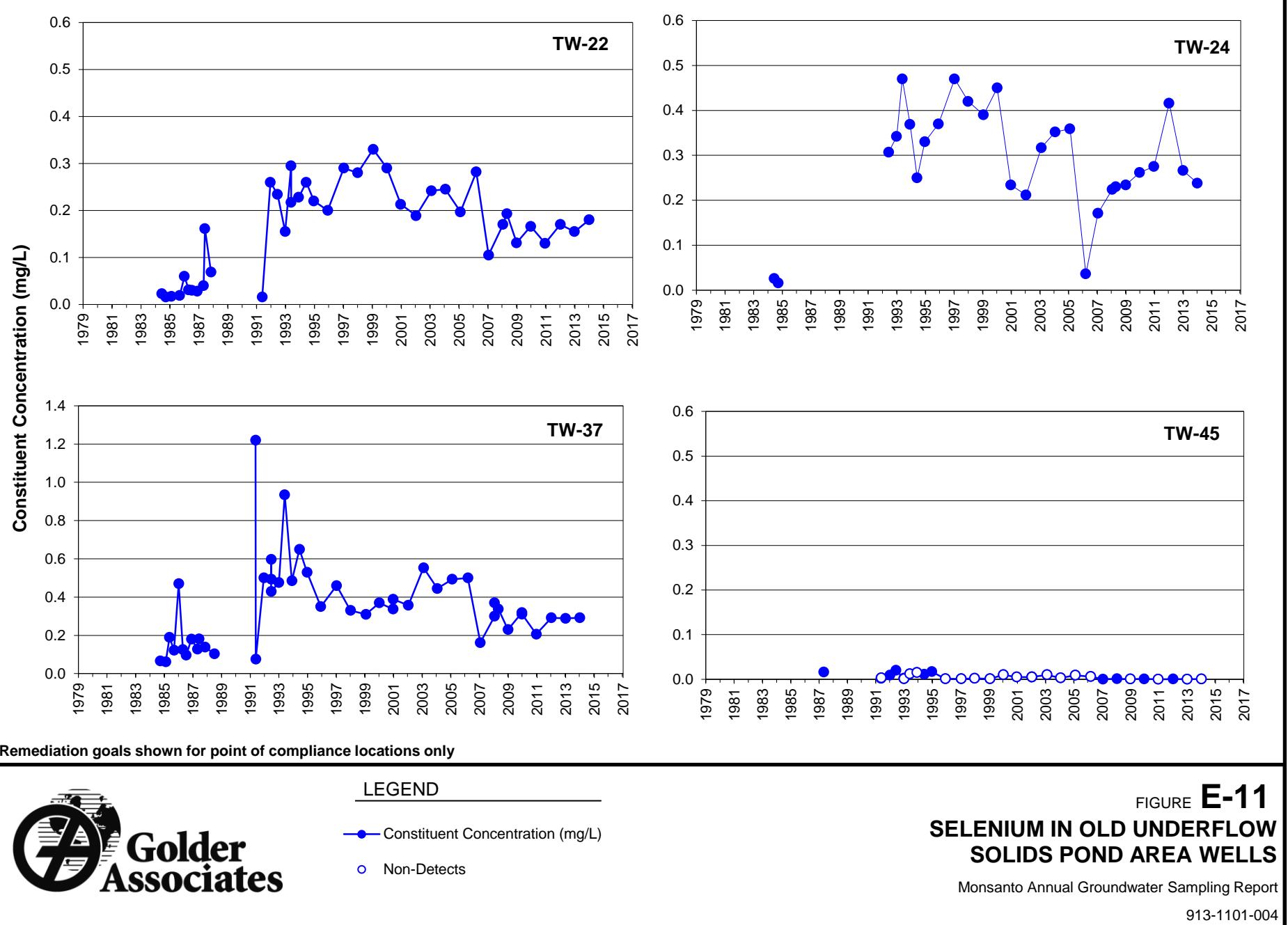
- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

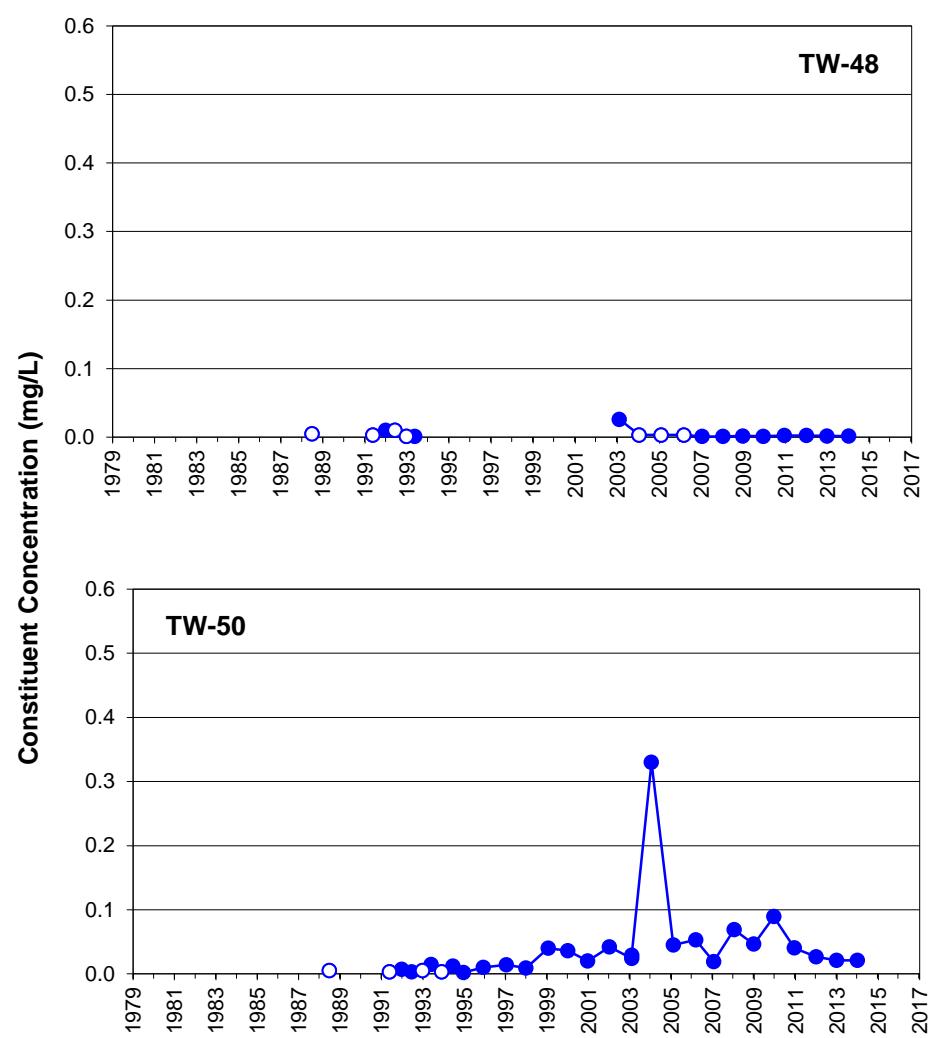
FIGURE E-10

SELENIUM IN NW POND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE E-12
SELENIUM IN UNDERFLOW SOLIDS PILES
AREA WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004

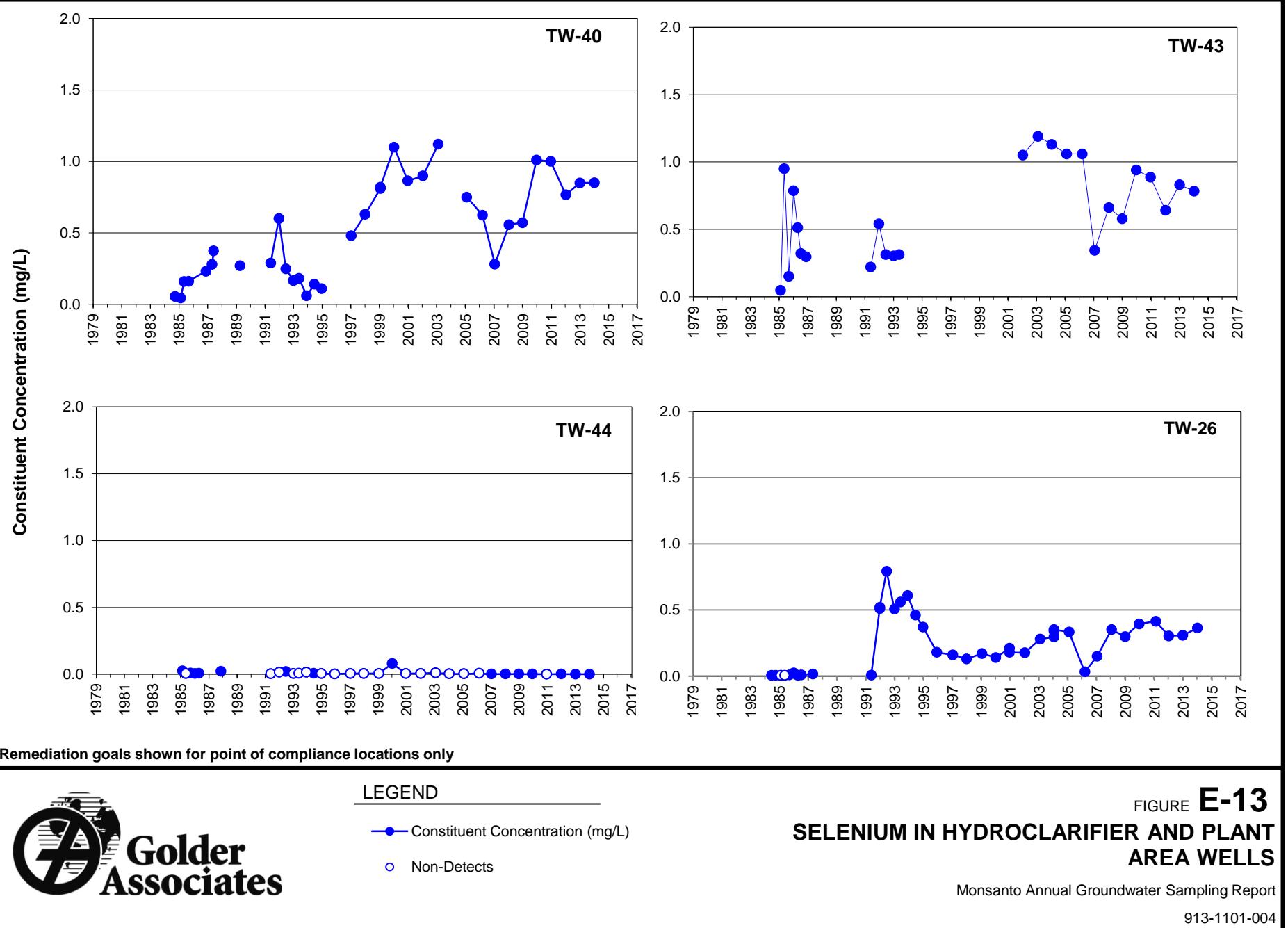
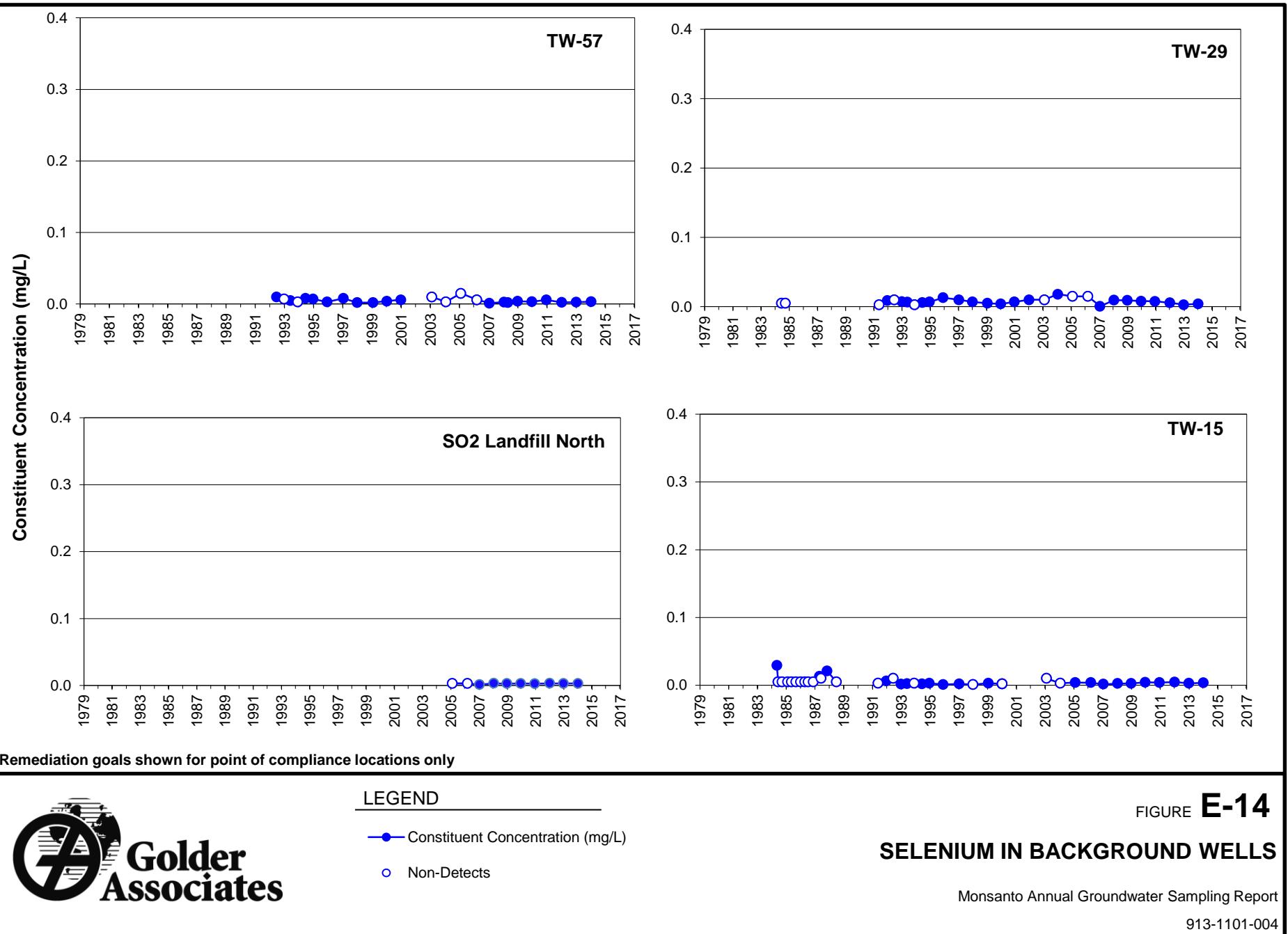
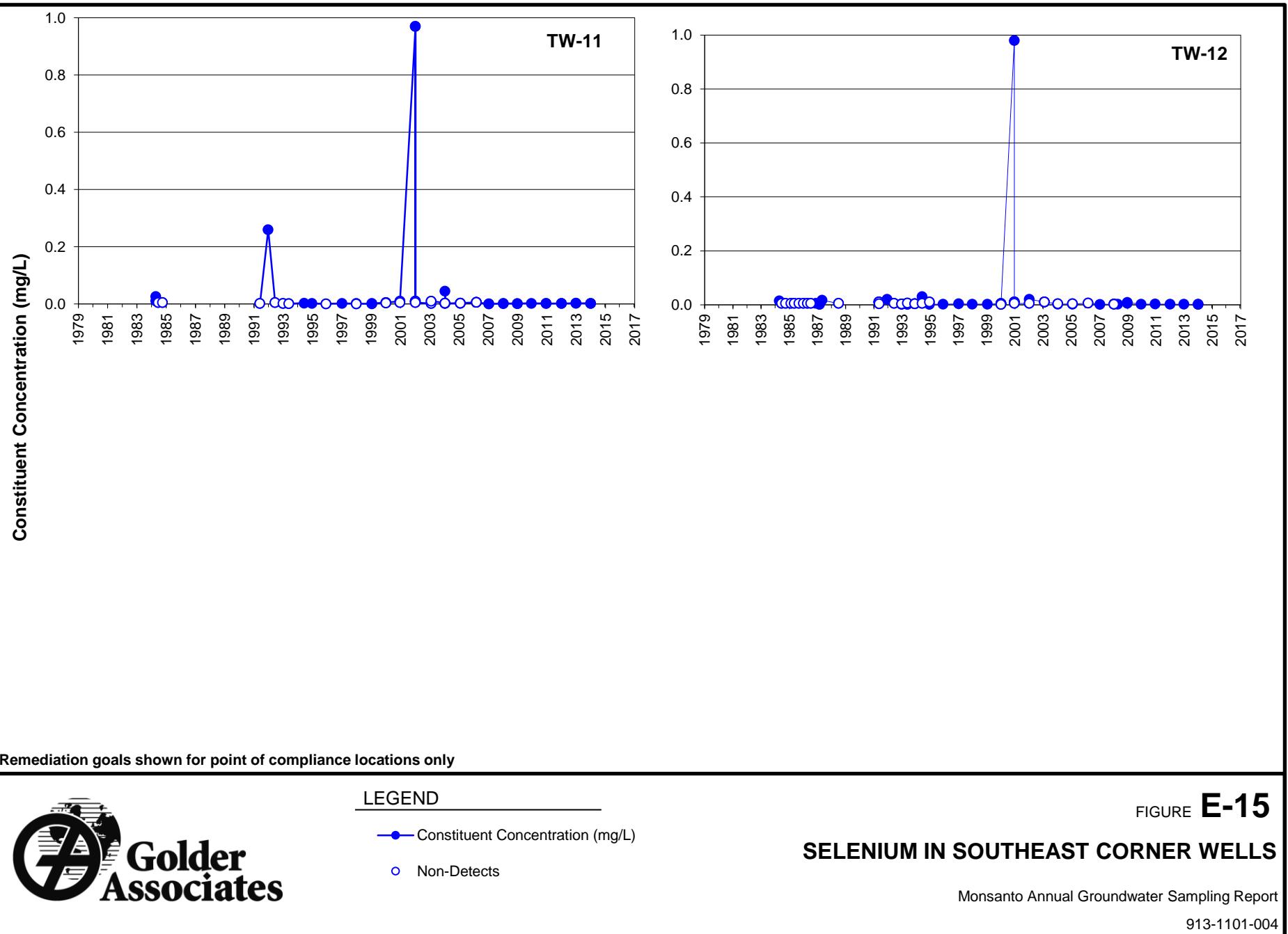


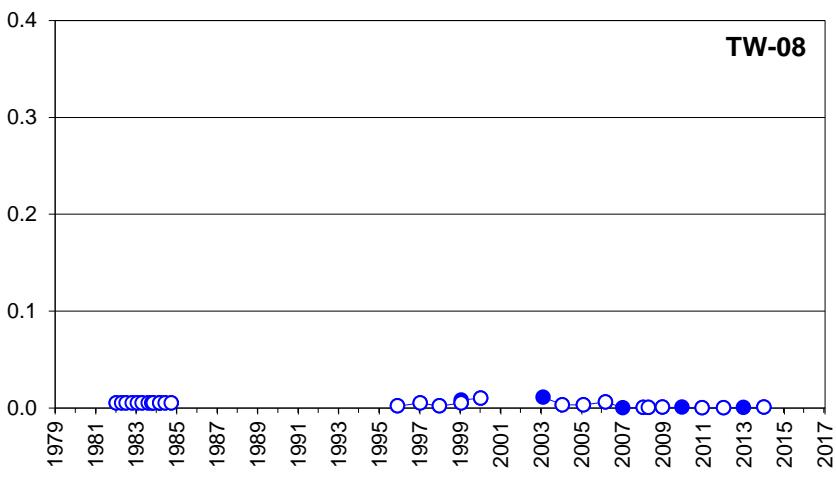
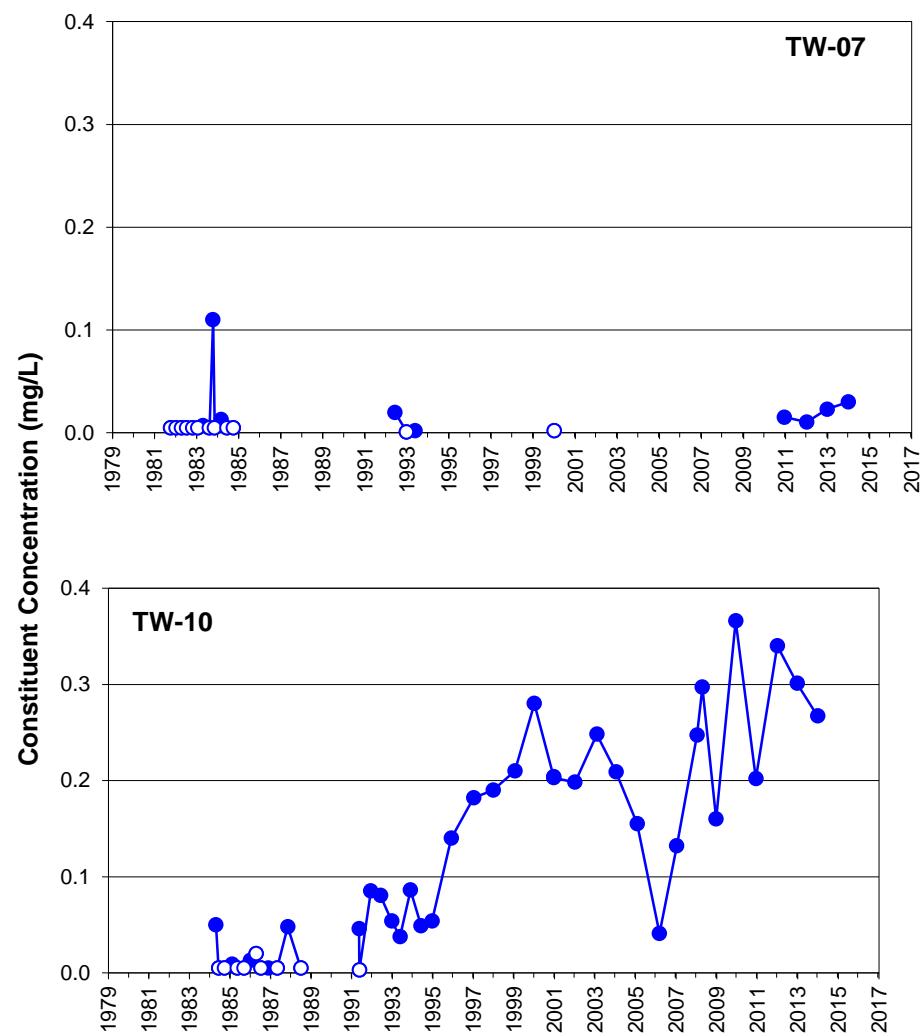
FIGURE E-13
SELENIUM IN HYDROCLARIFIER AND PLANT AREA WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004







Remediation goals shown for point of compliance locations only

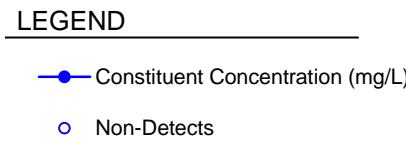
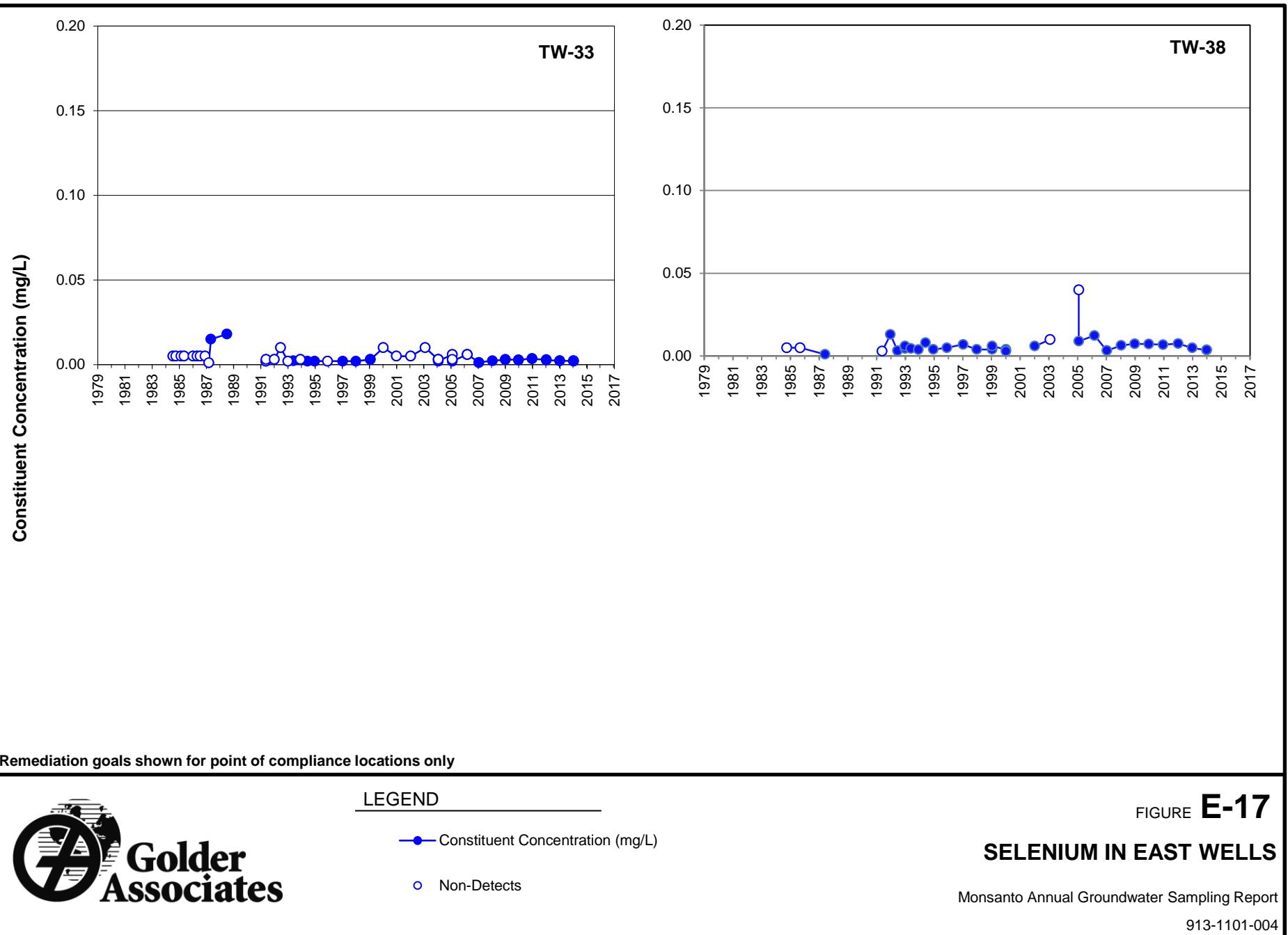


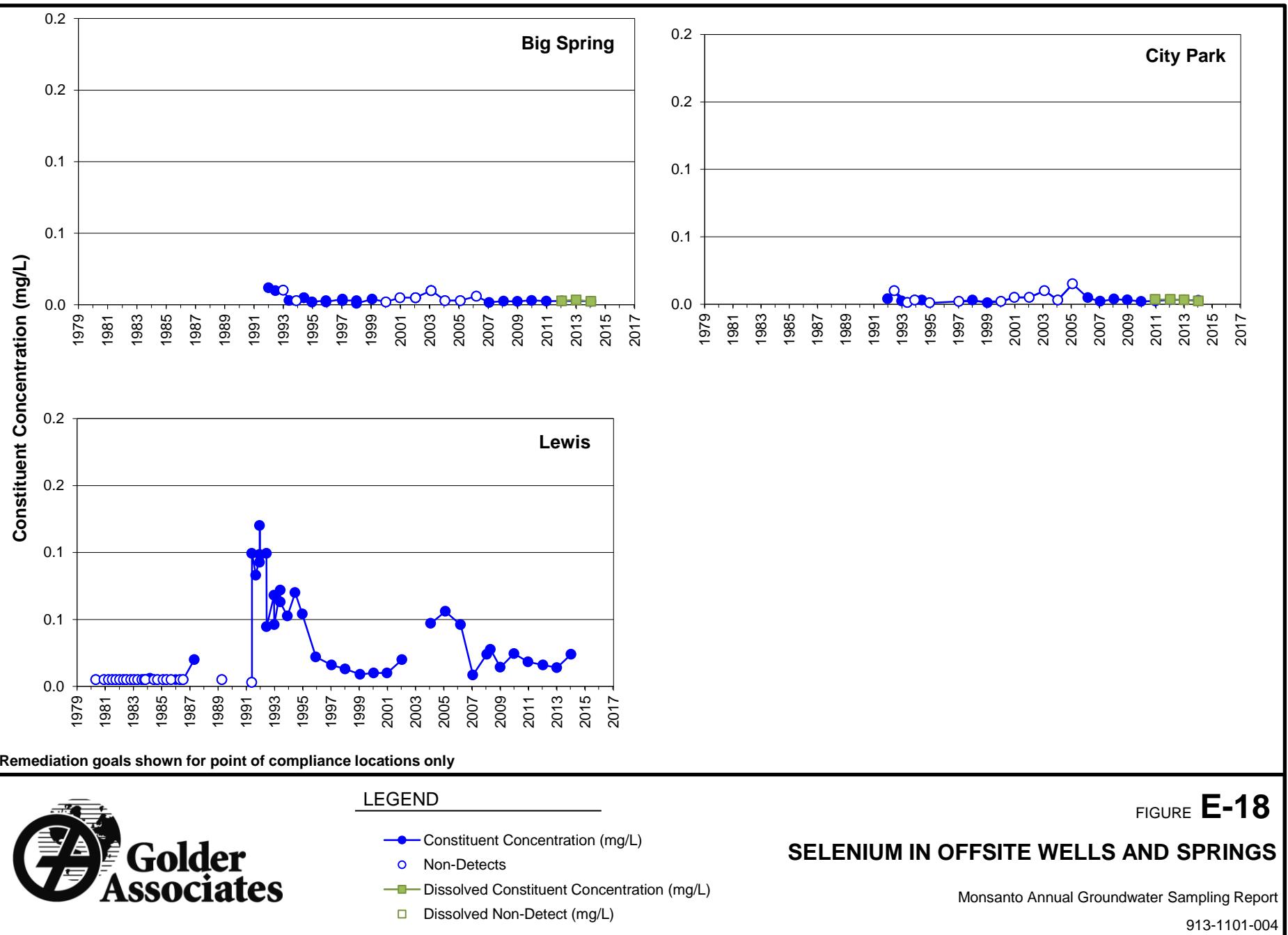
FIGURE E-16

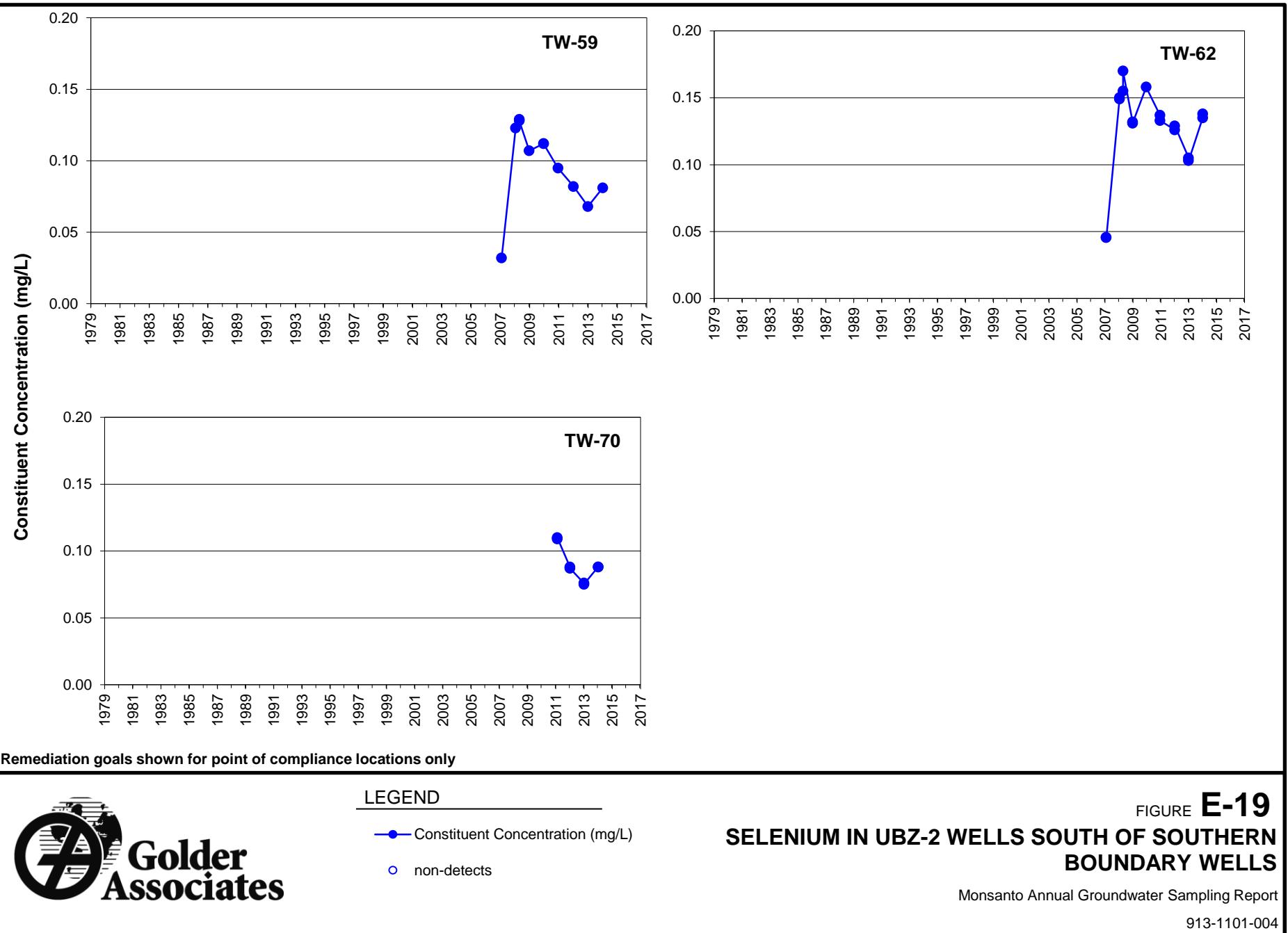
SELENIUM IN SOUTHWEST CORNER WELLS

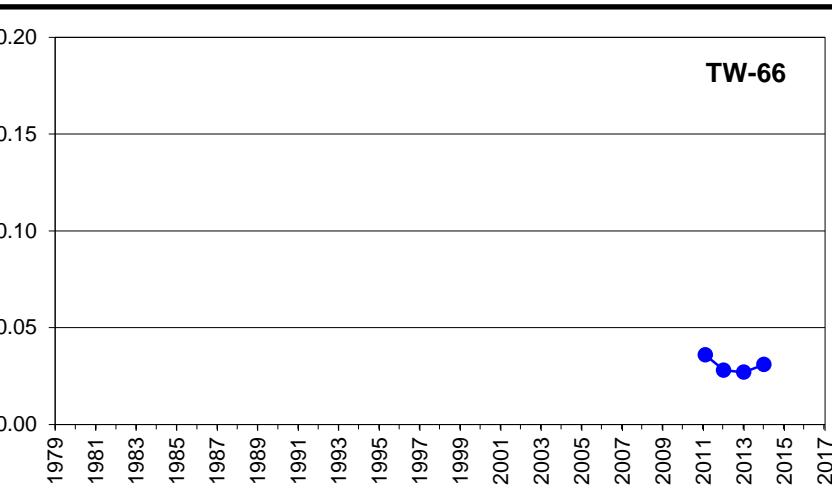
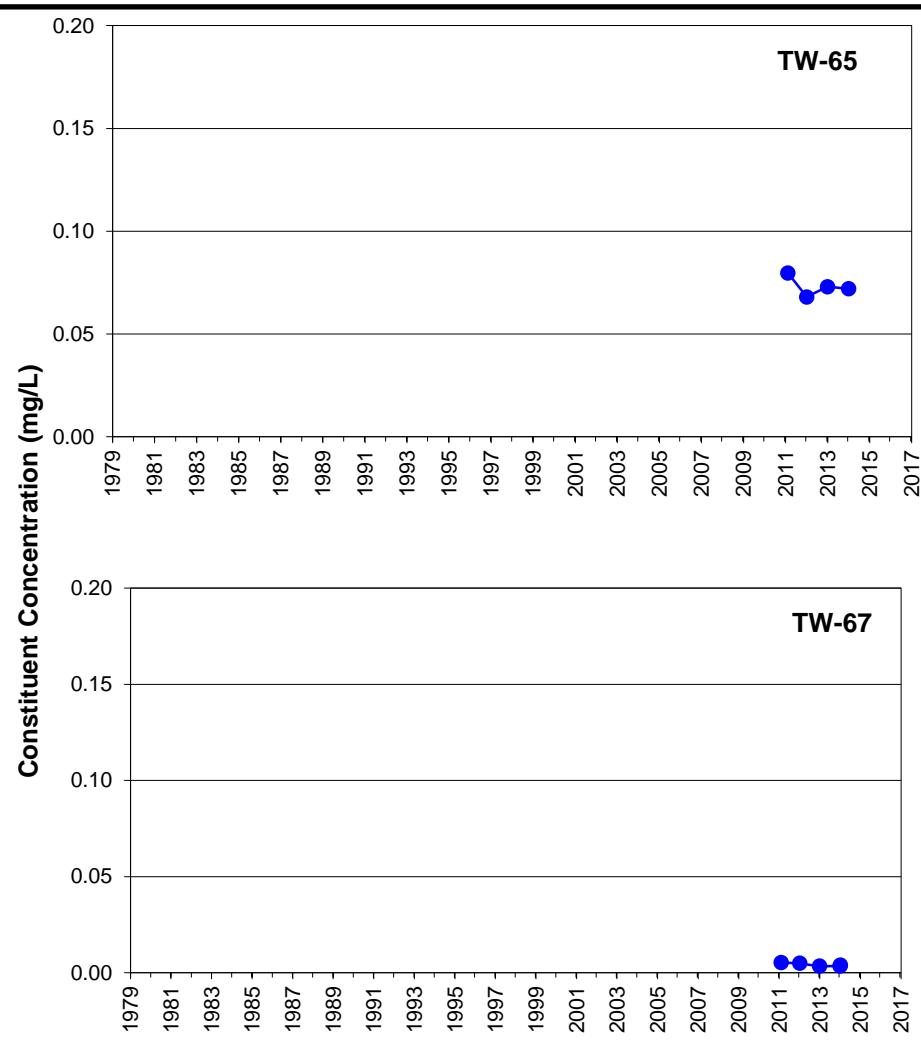
Monsanto Annual Groundwater Sampling Report

913-1101-004









Remediation goals shown for point of compliance locations only

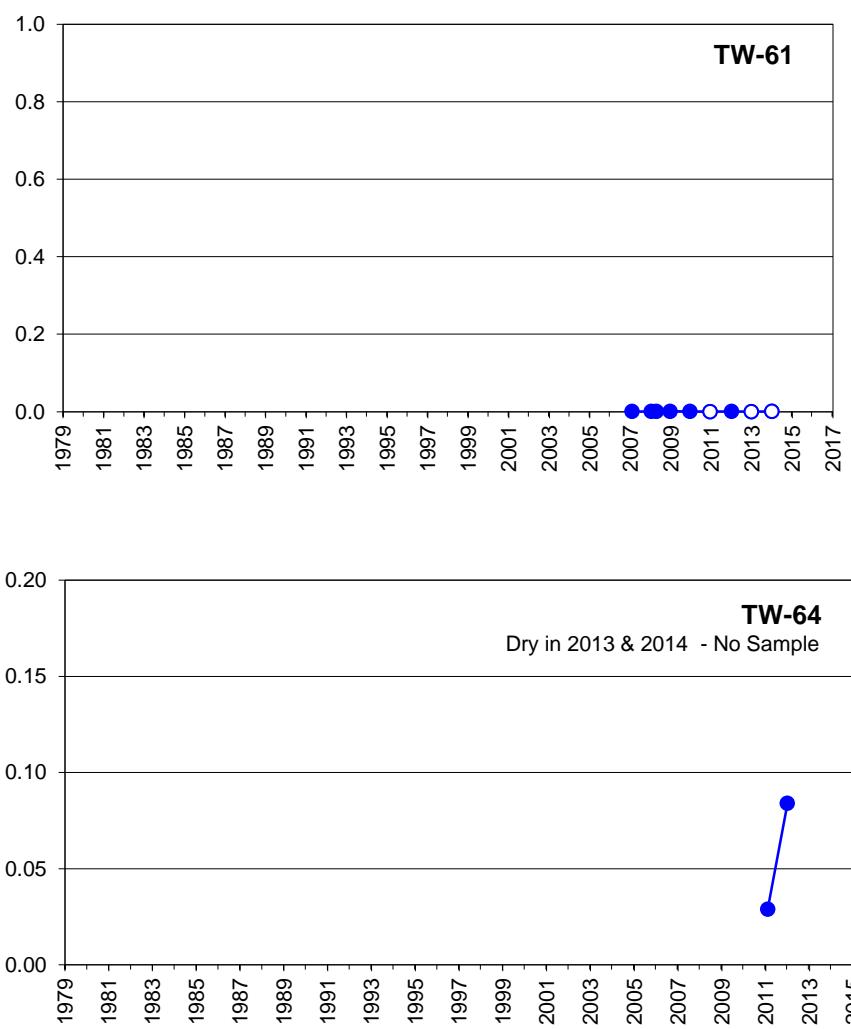
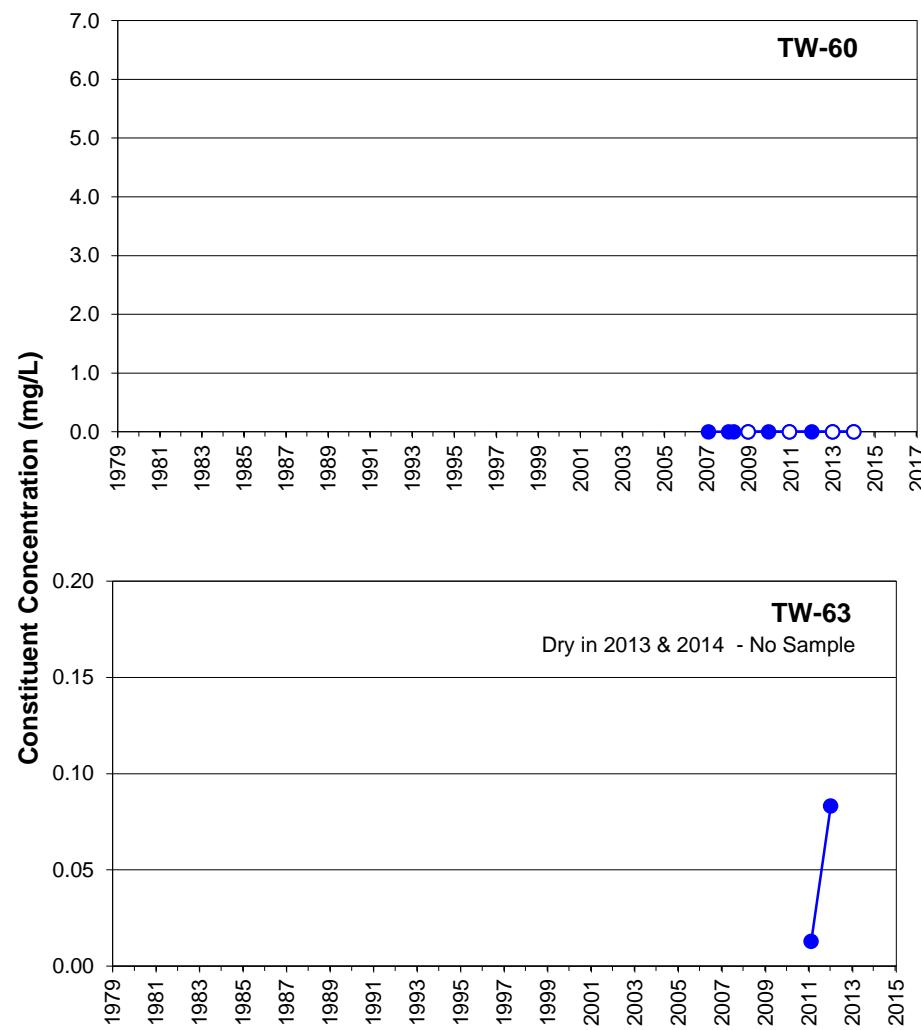


LEGEND

- Constituent Concentration (mg/L)
- non-detects

FIGURE E-20
SELENIUM IN UBZ-2 WELLS AT PROPERTY LINE

Monsanto Annual Groundwater Sampling Report
913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

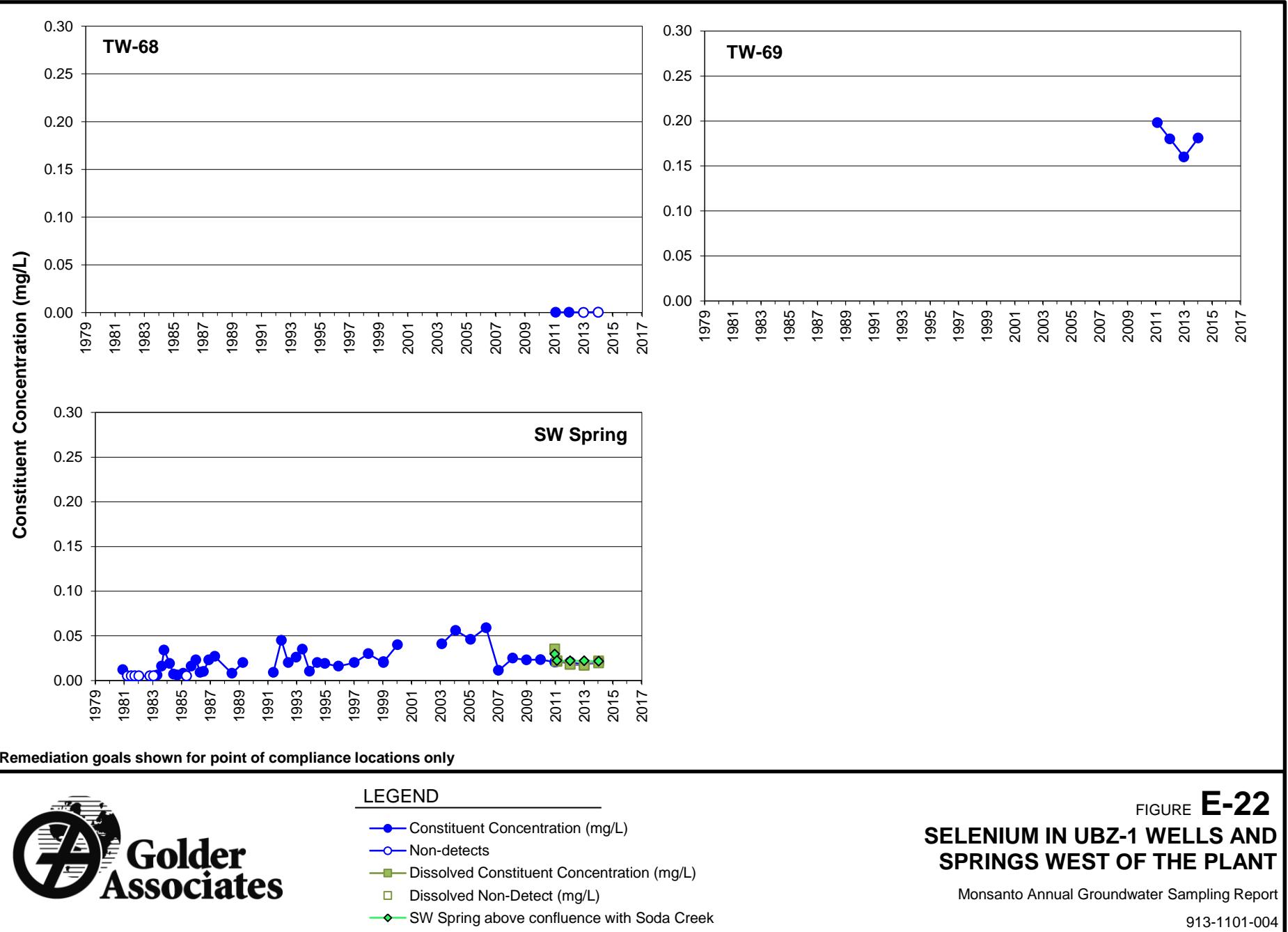
- Constituent Concentration (mg/L)
- non-detects

FIGURE E-21

SELENIUM IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



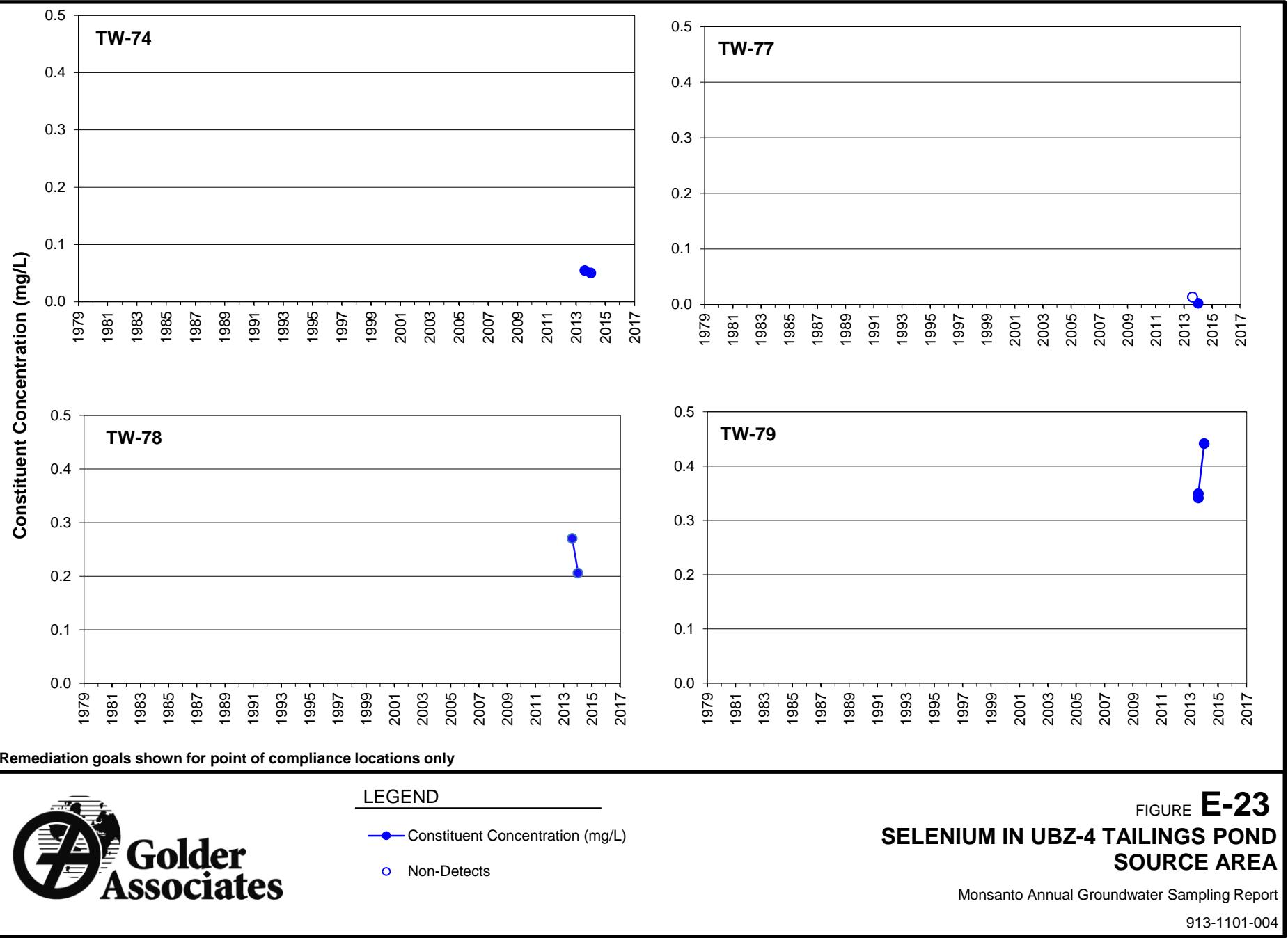
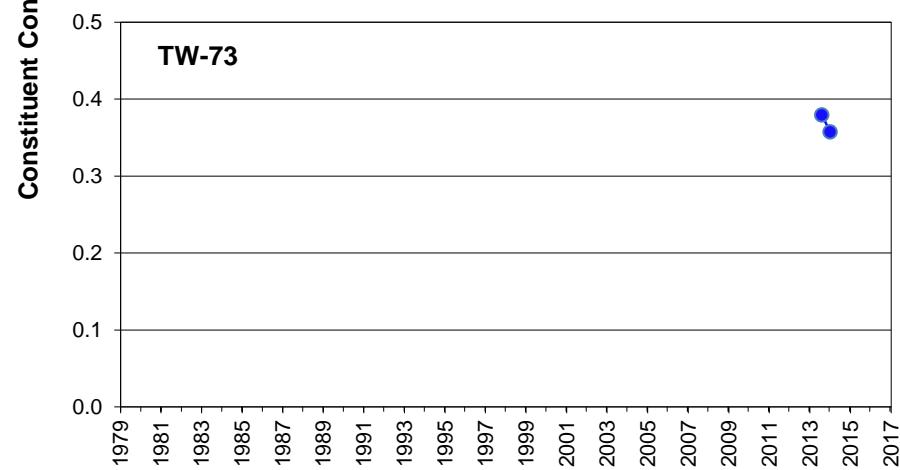
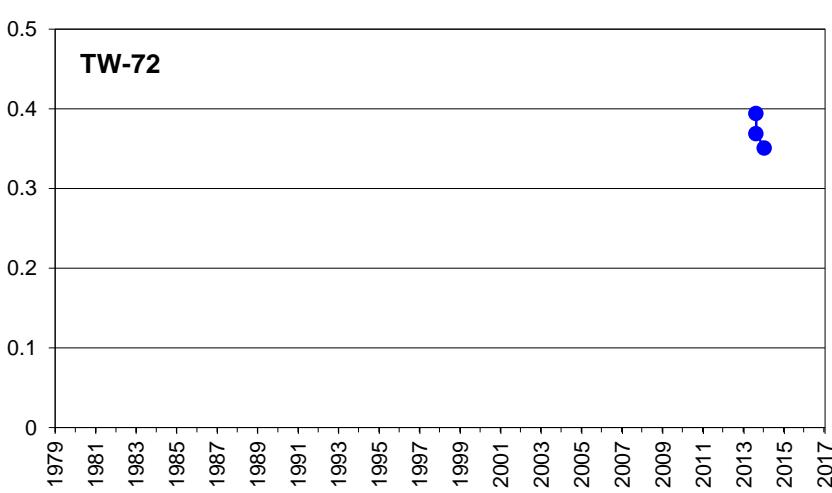
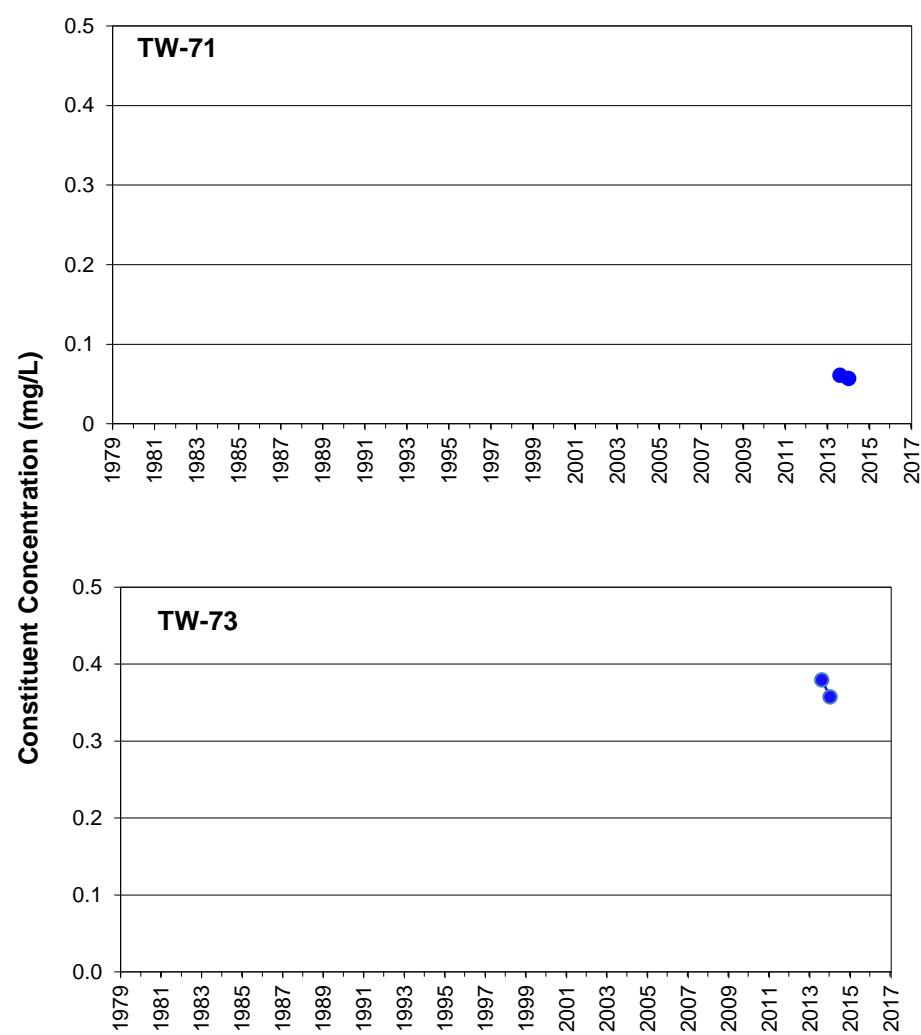


FIGURE E-23

**SELENIUM IN UBZ-4 TAILINGS POND
SOURCE AREA**

Monsanto Annual Groundwater Sampling Report

913-1101-004



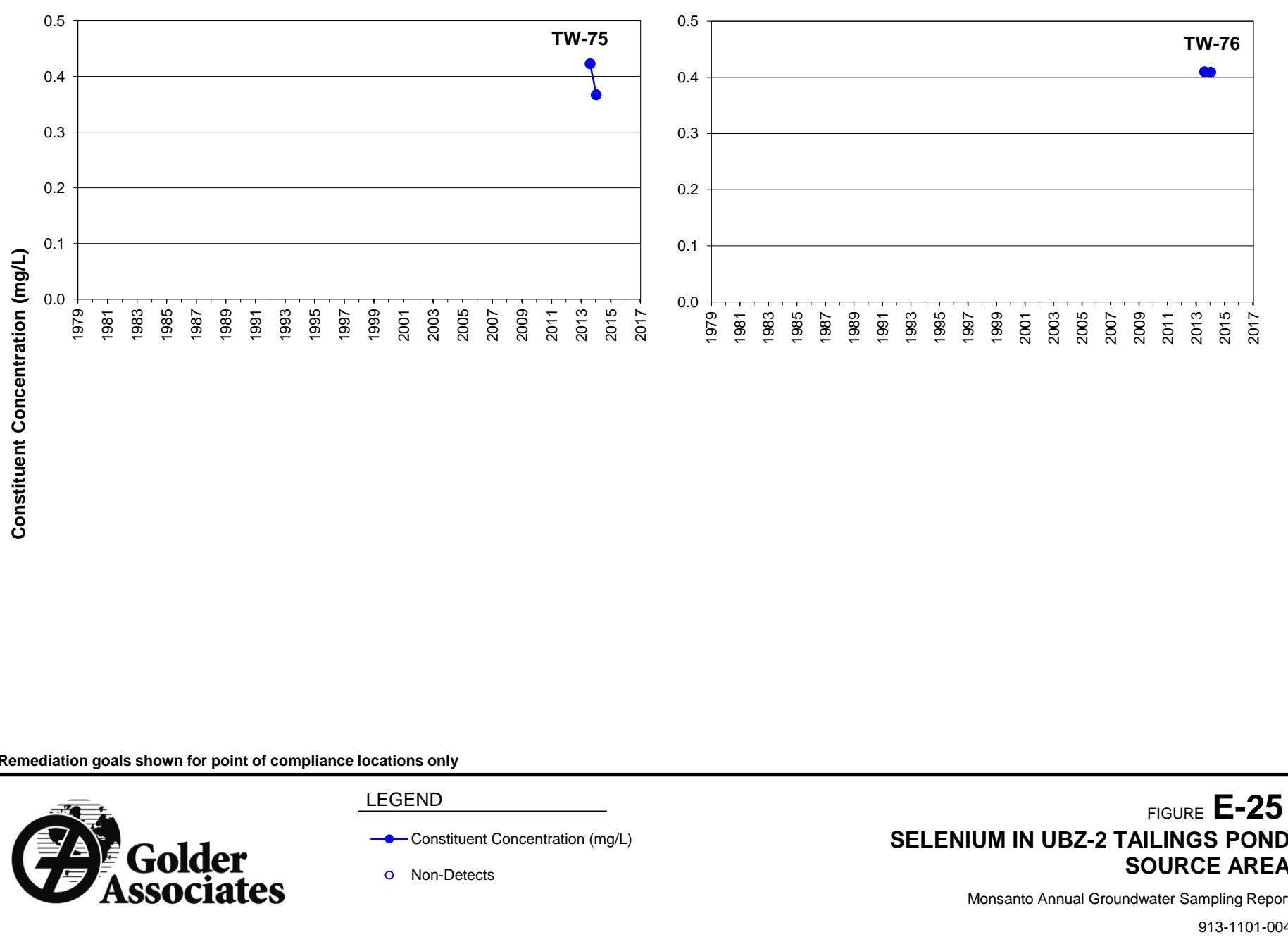
Remediation goals shown for point of compliance locations only



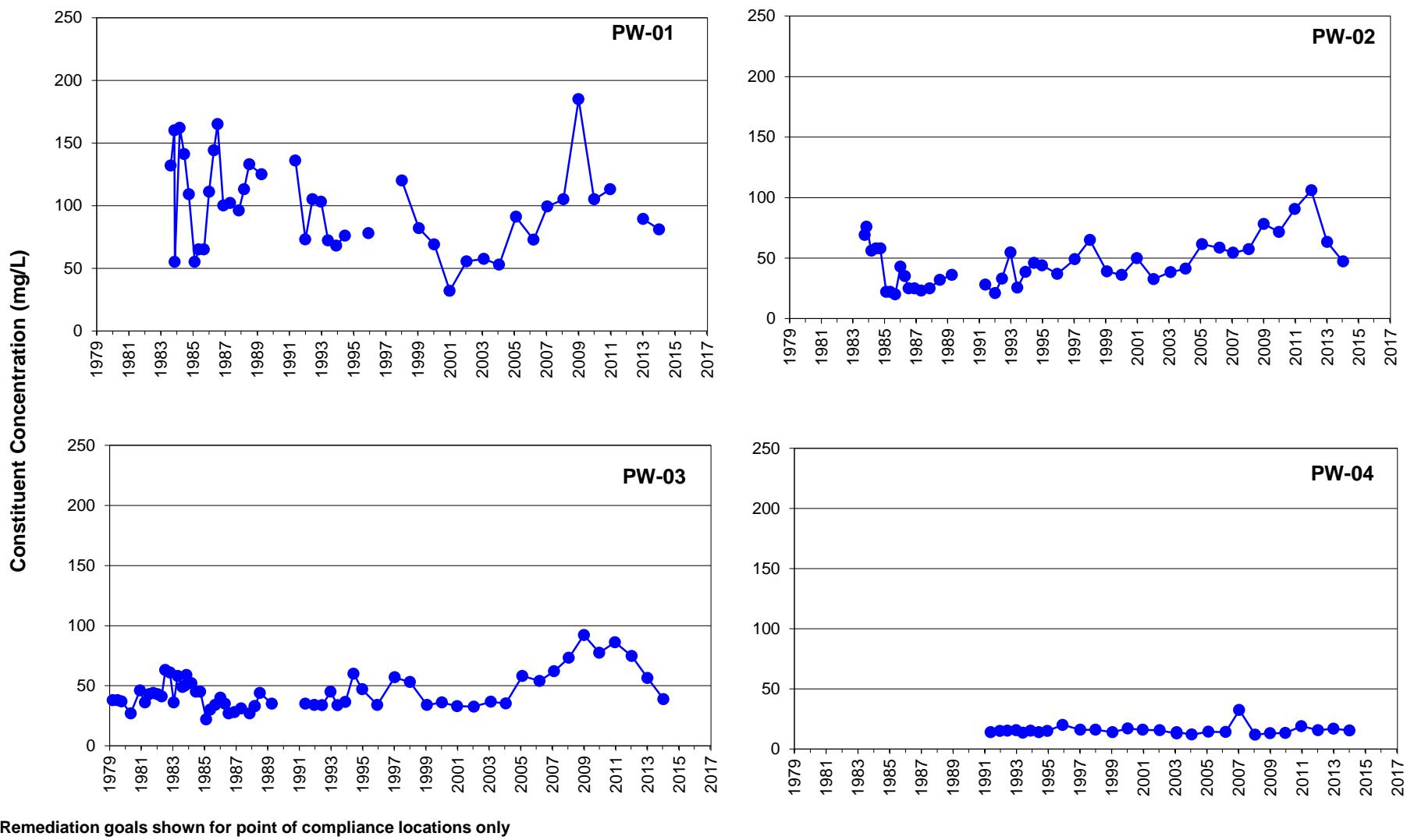
- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE E-24
SELENIUM IN UBZ-2 UFS SOURCE AREA

Monsanto Annual Groundwater Sampling Report
913-1101-004



APPENDIX F
TIME-HISTORY GRAPHS FOR CHLORIDE



LEGEND

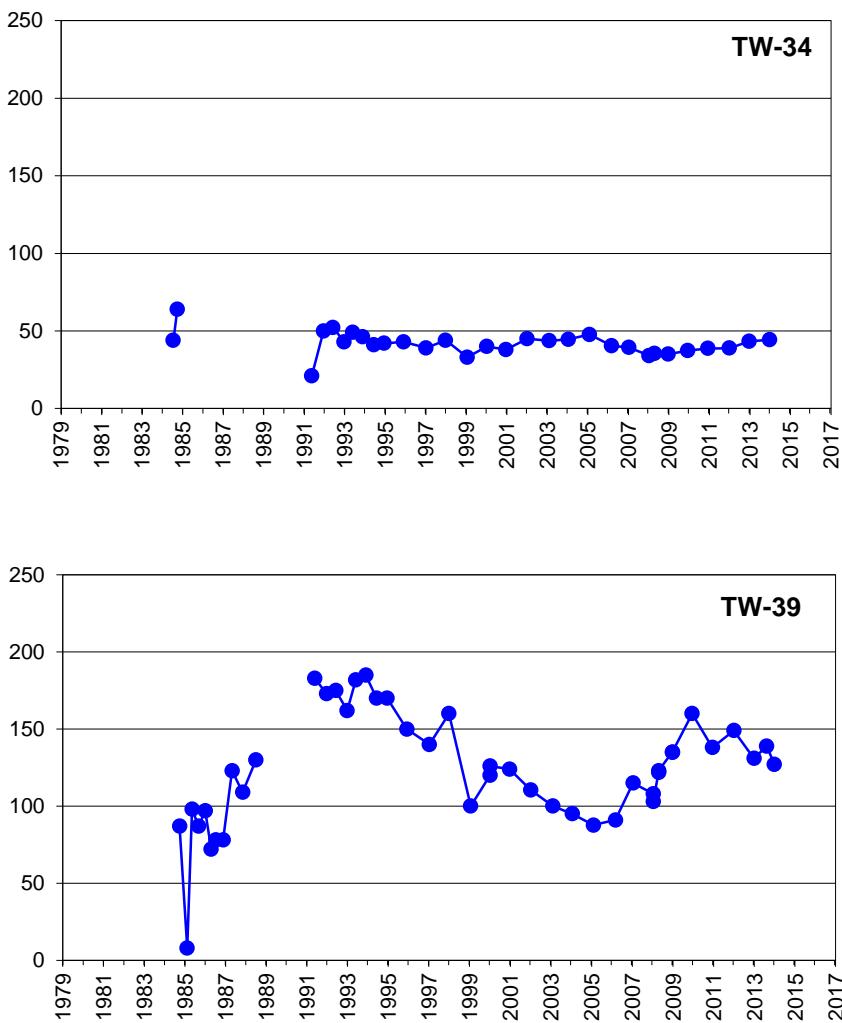
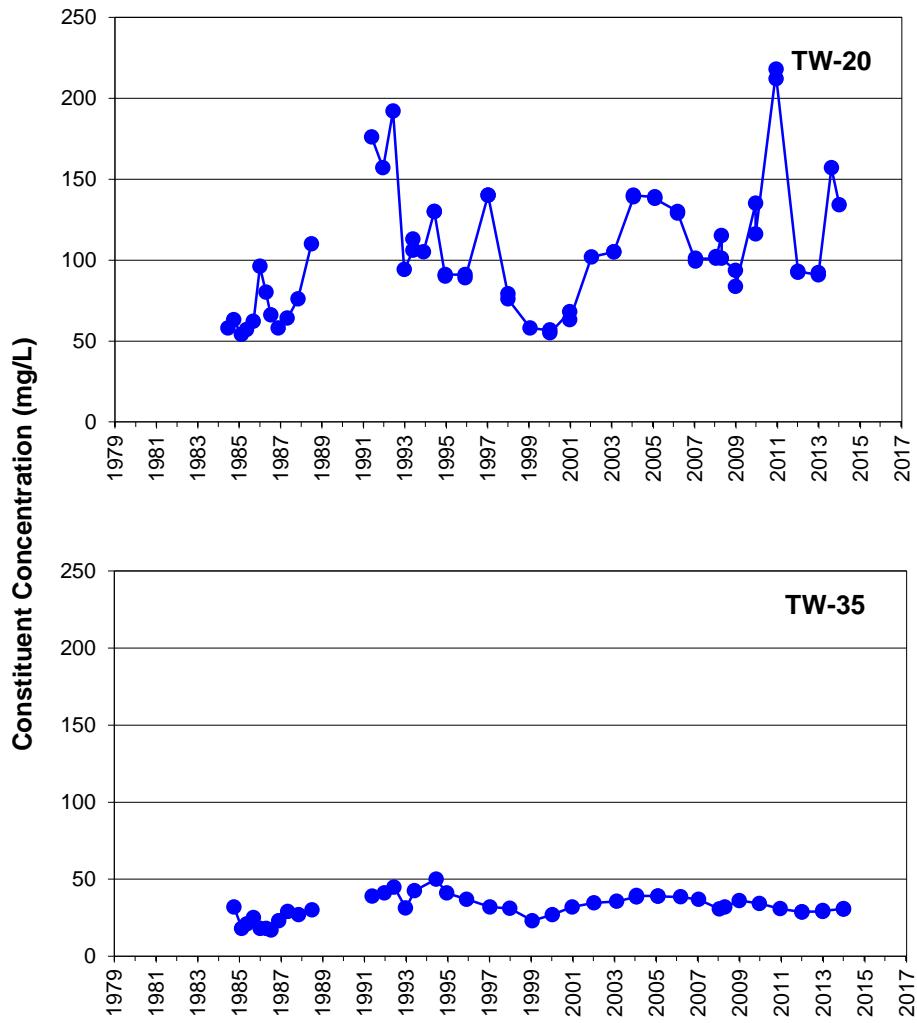
—●— Constituent Concentration (mg/L)

FIGURE F-1

CHLORIDE IN PRODUCTION WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

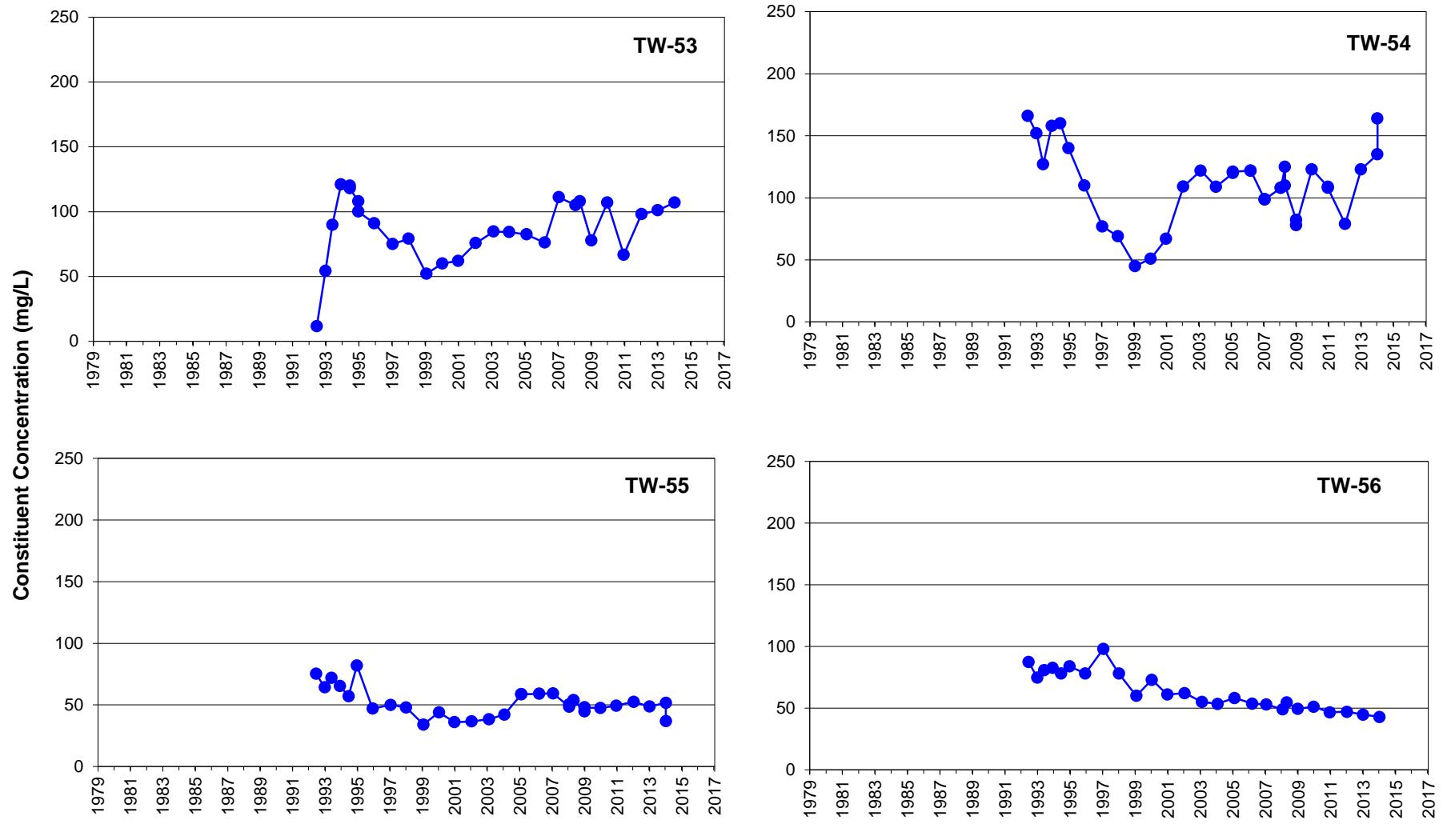
Constituent Concentration (mg/L)

FIGURE F-2

CHLORIDE IN SOUTH FENCELINE WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

Constituent Concentration (mg/L)

FIGURE F-3

CHLORIDE IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004

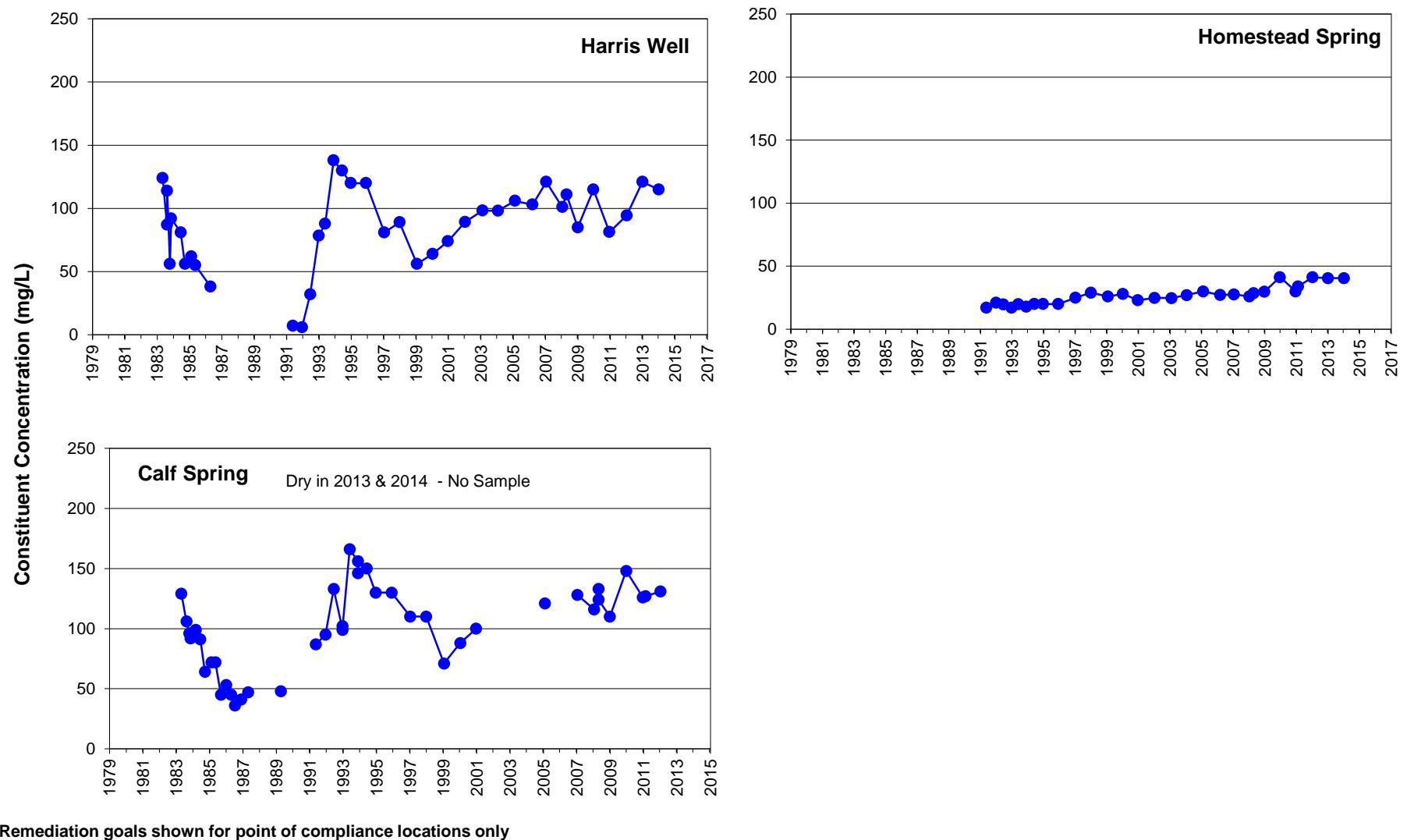


FIGURE F-4
**CHLORIDE IN HARRIS WELL AND SPRINGS
SOUTH OF PLANT**

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

- Constituent Concentration (mg/L)

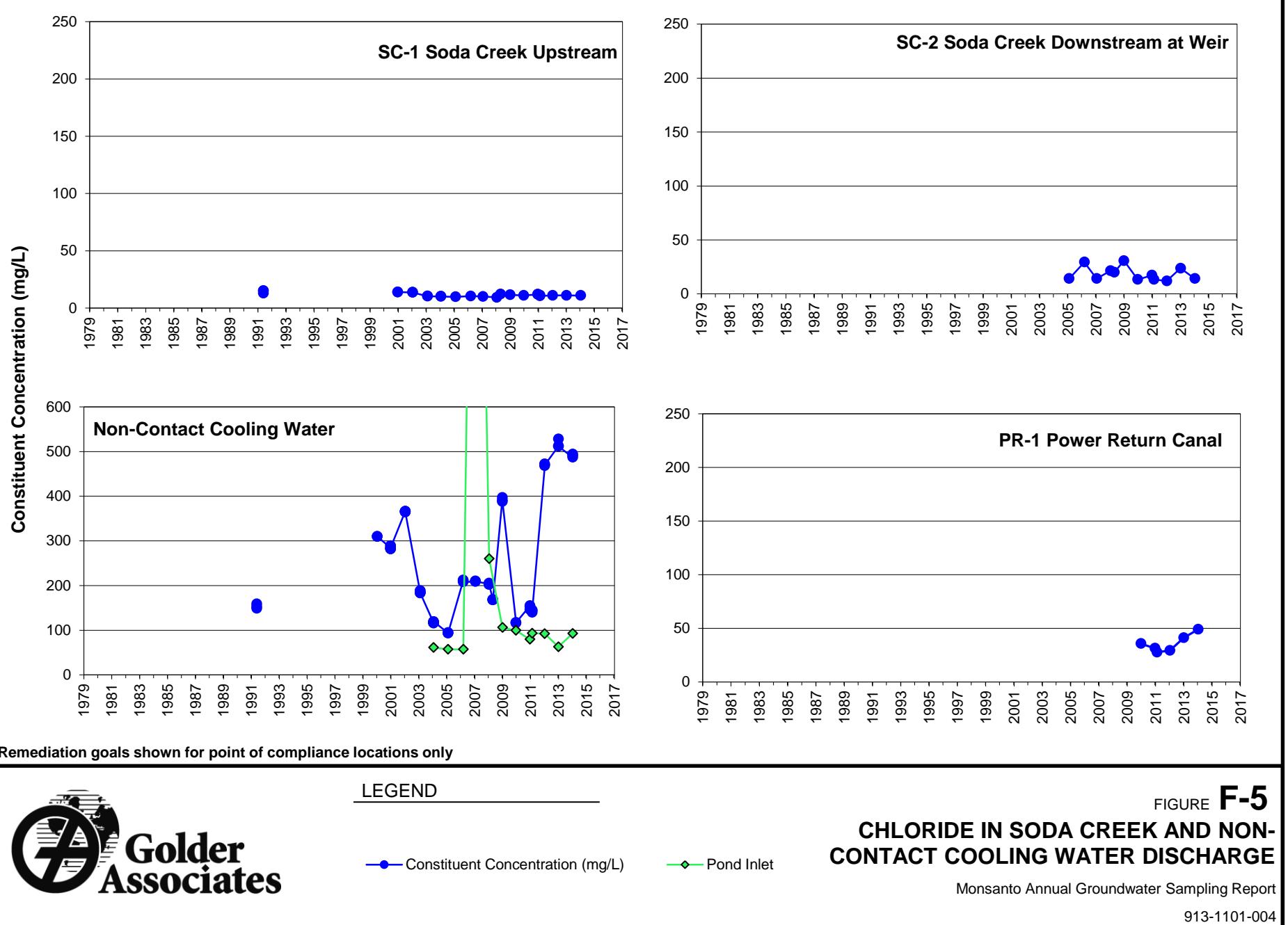
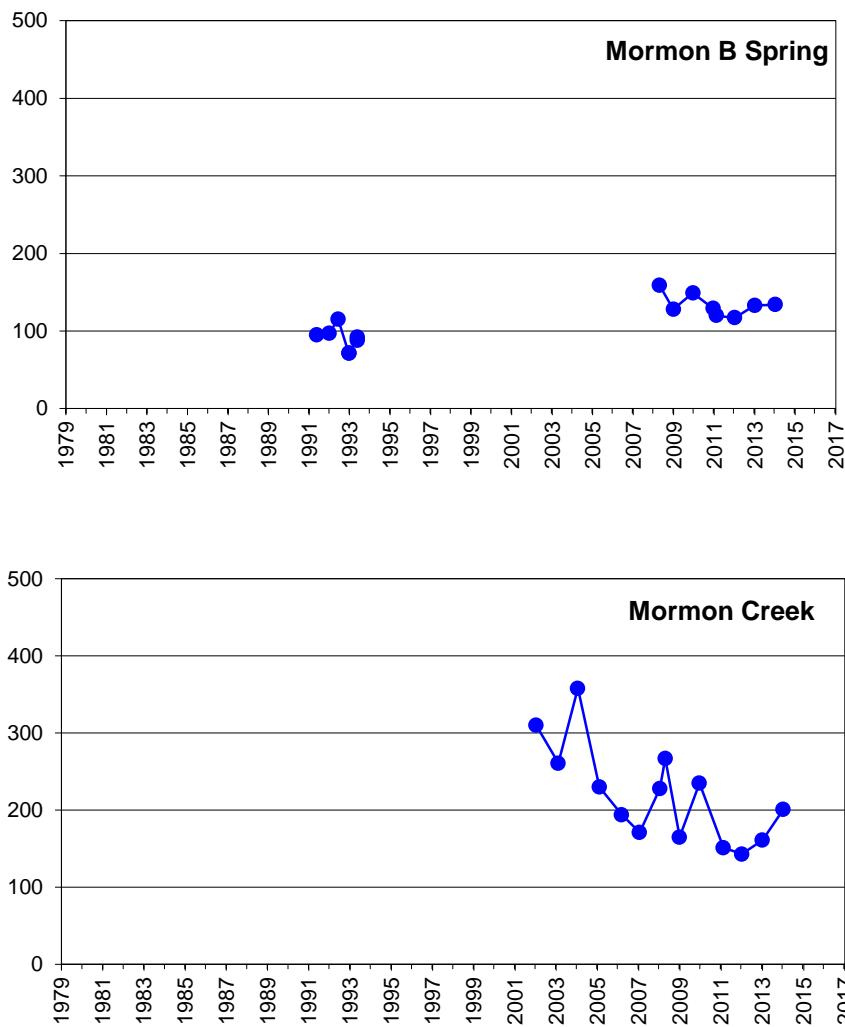
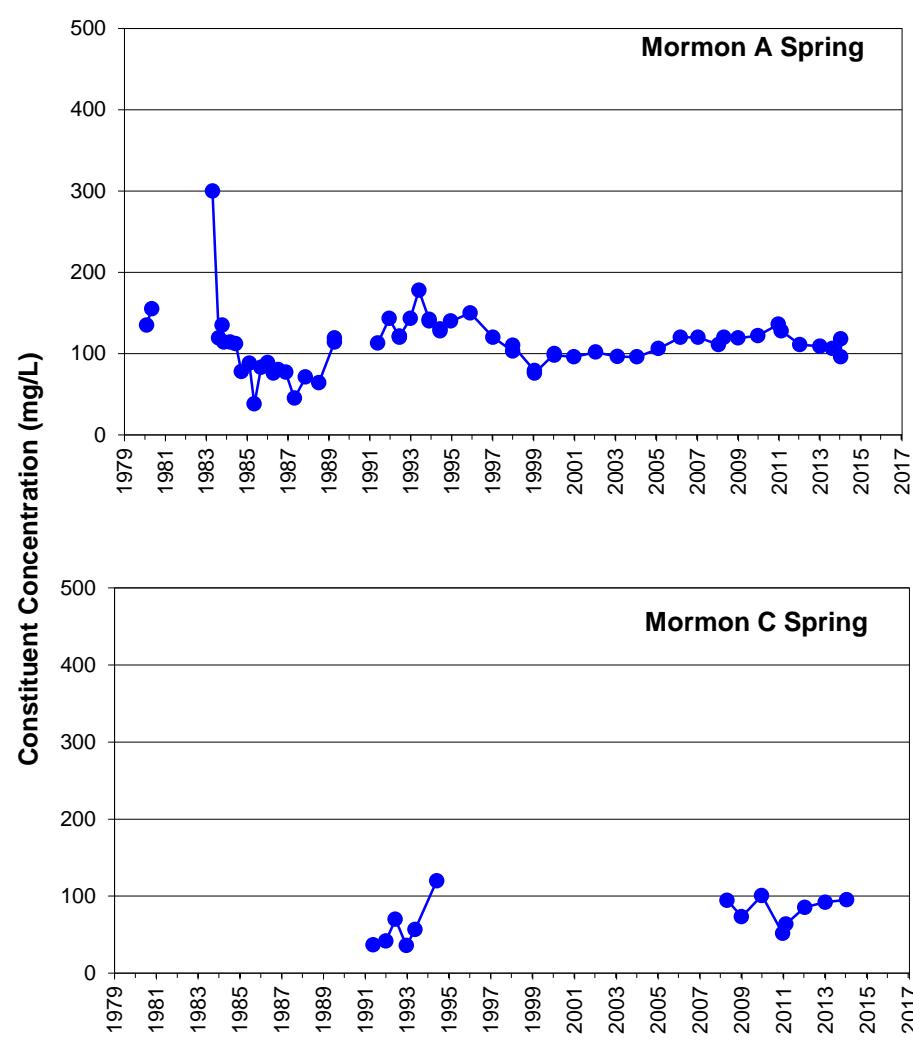


FIGURE F-5
CHLORIDE IN SODA CREEK AND NON-CONTACT COOLING WATER DISCHARGE

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



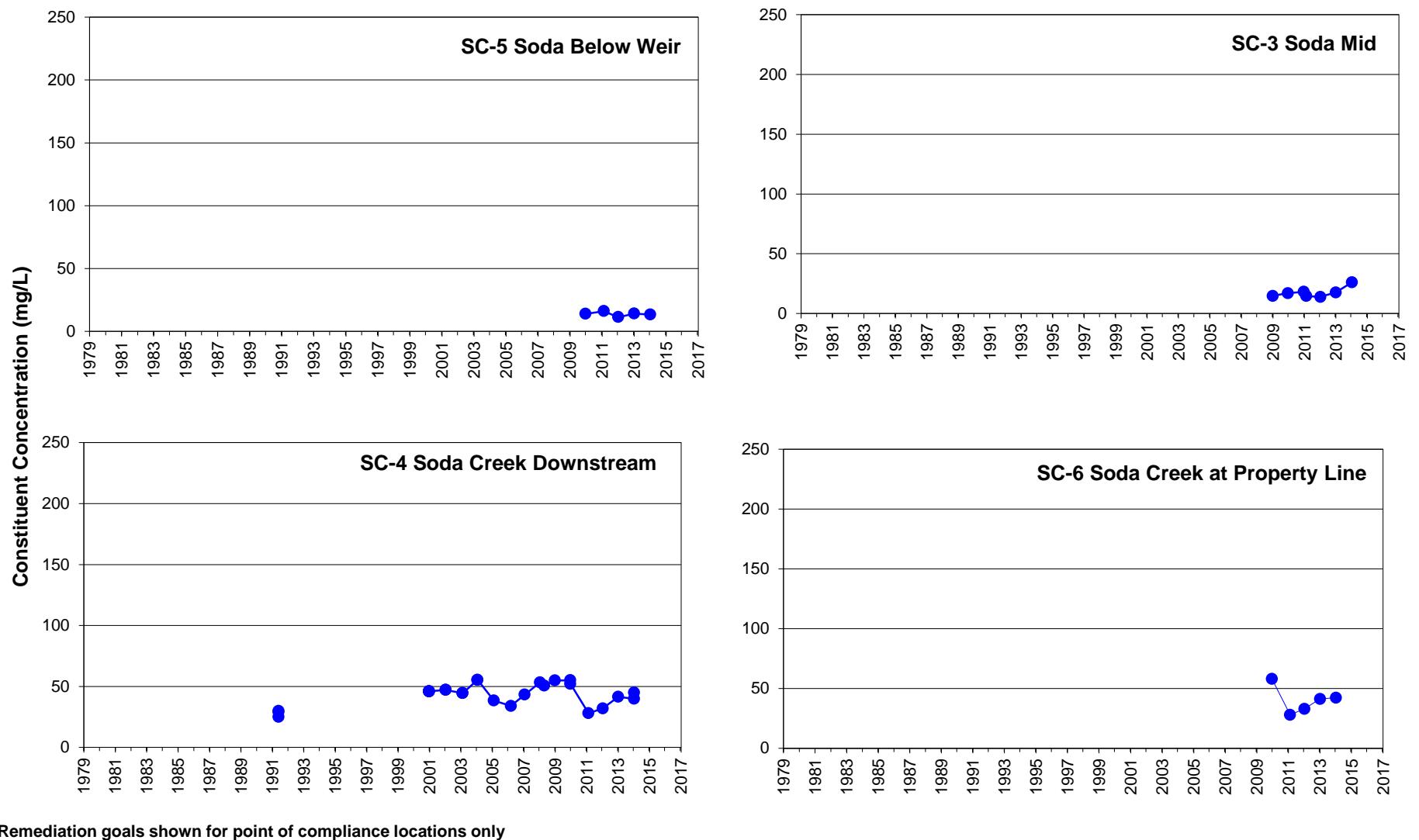
LEGEND

Constituent Concentration (mg/L)

FIGURE F-6
**CHLORIDE IN MORMON A, B, AND C SPRINGS
AND MORMON CREEK**

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

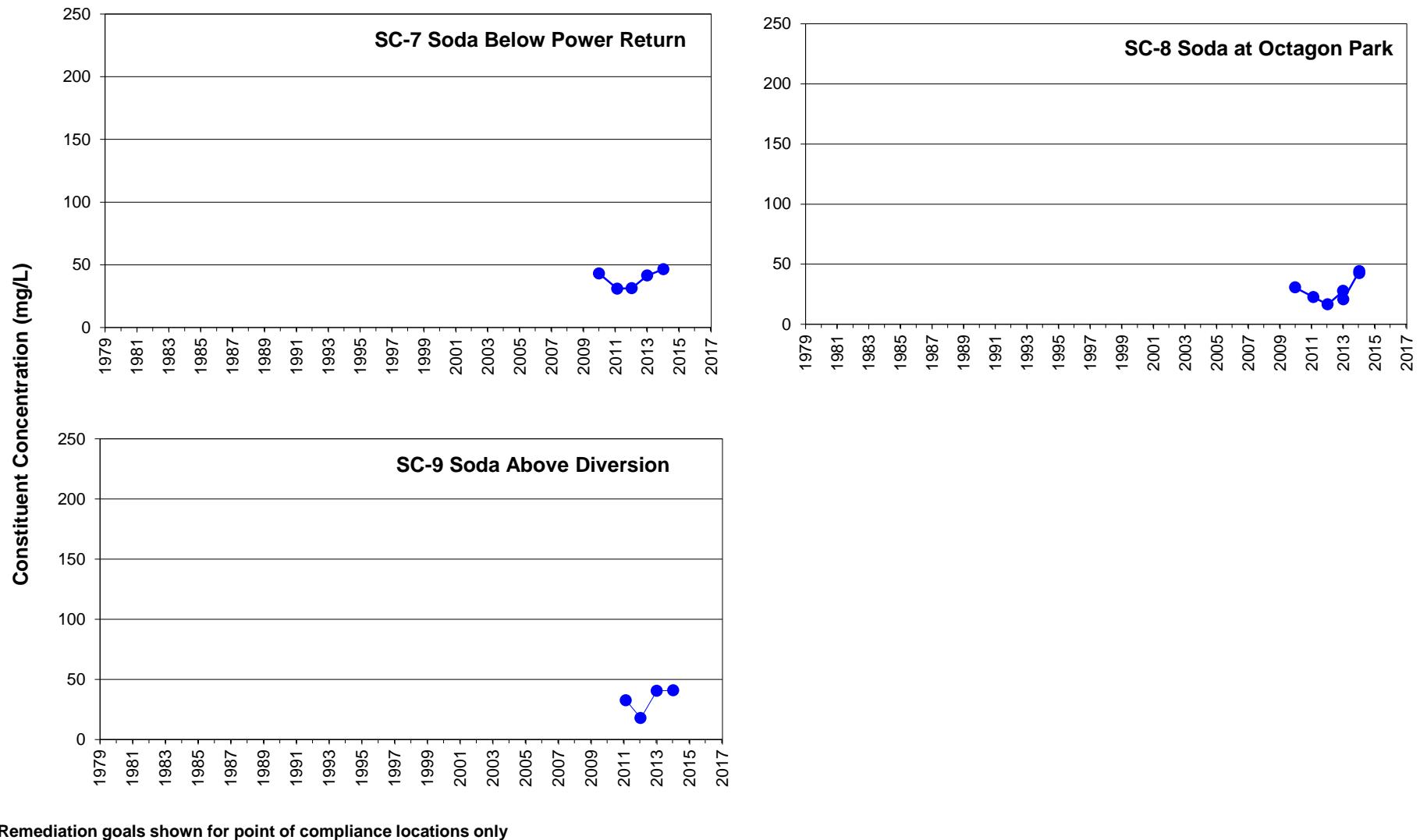
Constituent Concentration (mg/L)

FIGURE F-7

CHLORIDE IN SODA CREEK - WEIR TO PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004



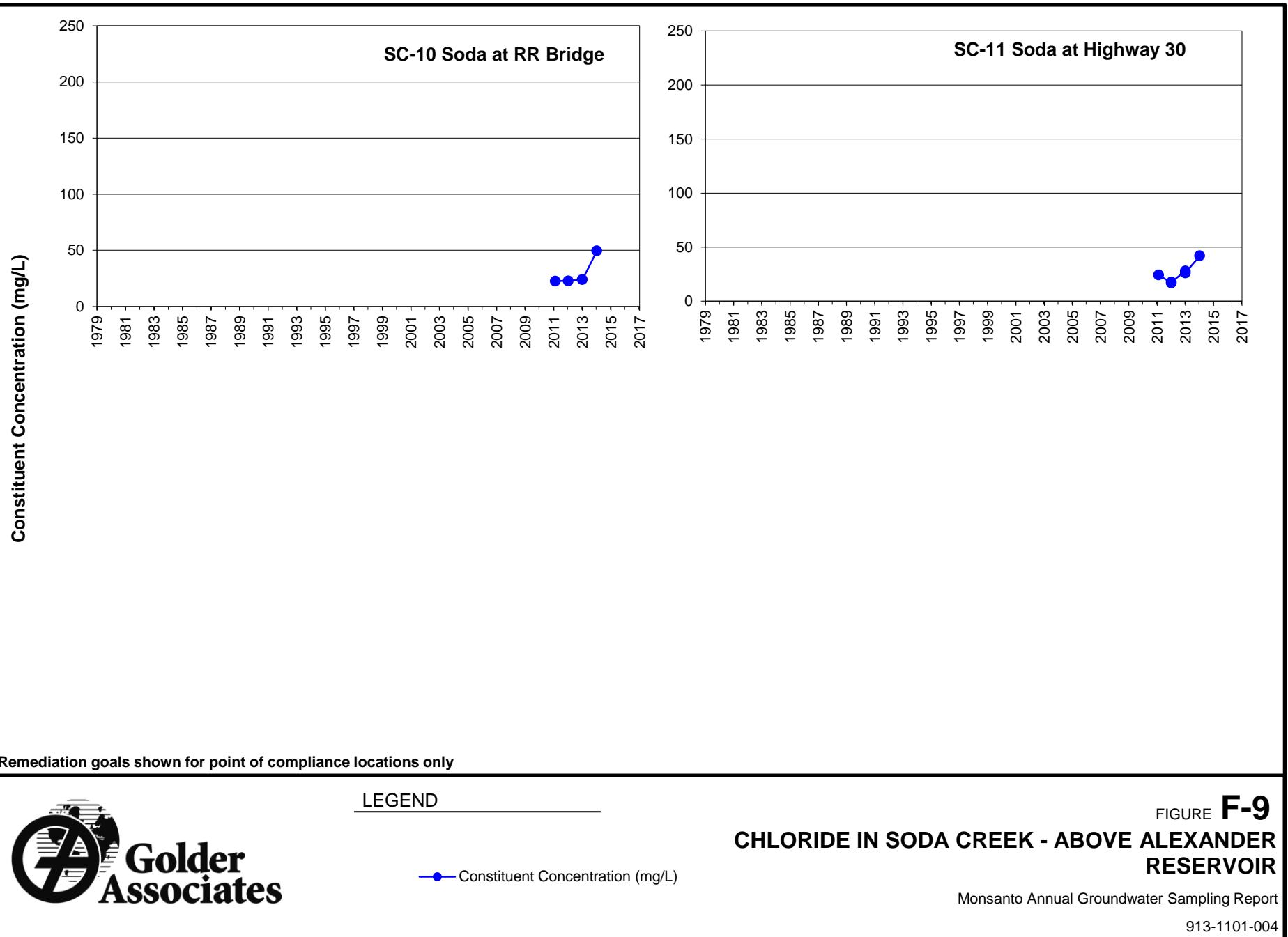
LEGEND

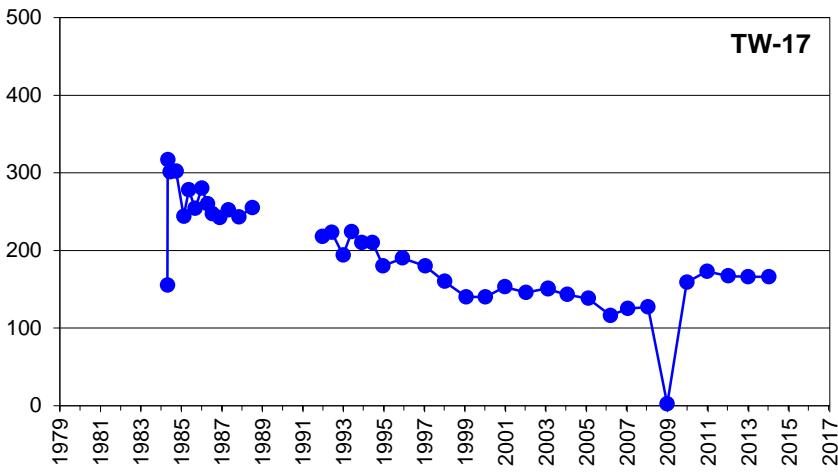
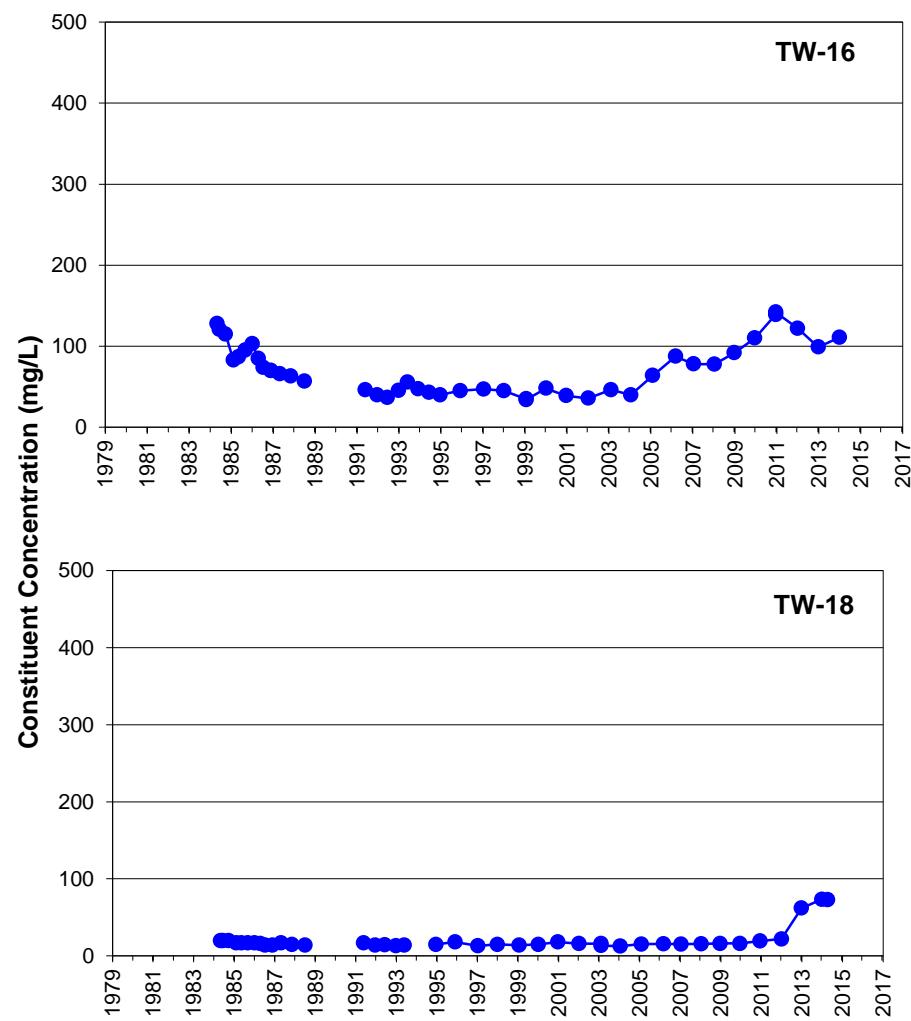
—●— Constituent Concentration (mg/L)

FIGURE F-8
CHLORIDE IN SODA CREEK - BELOW PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



LEGEND

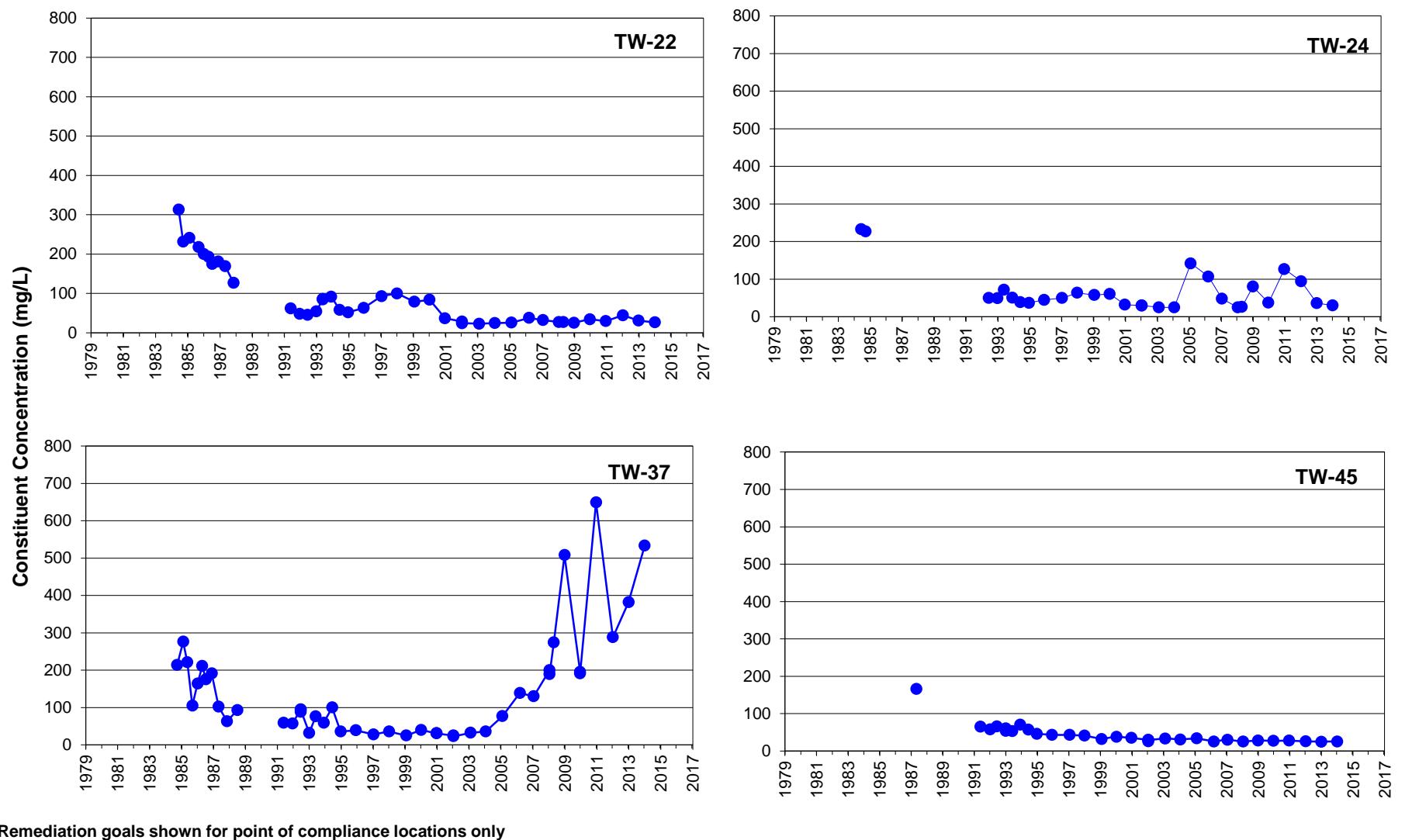
—●— Constituent Concentration (mg/L)

FIGURE F-10

CHLORIDE IN NW POND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



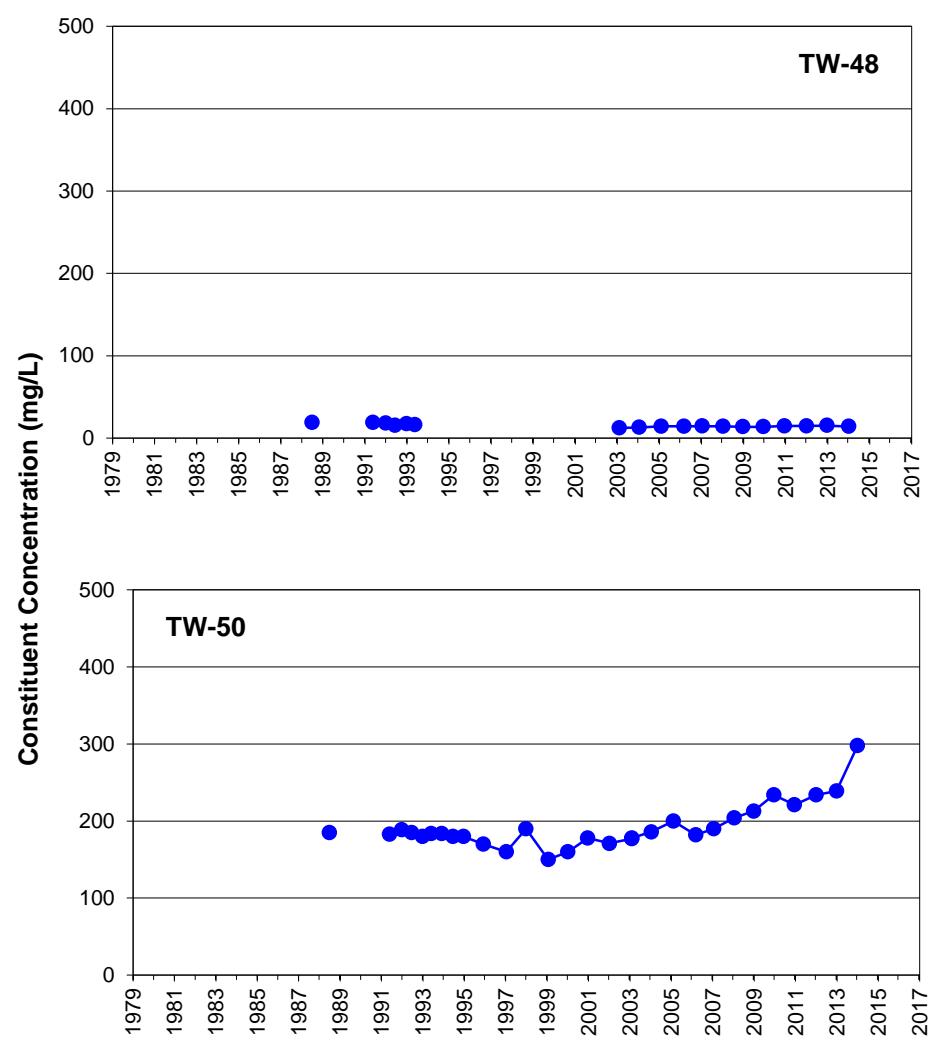
LEGEND

- Constituent Concentration (mg/L)

FIGURE F-11
**CHLORIDE IN OLD UNDERFLOW
SOLIDS POND AREA WELLS**

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

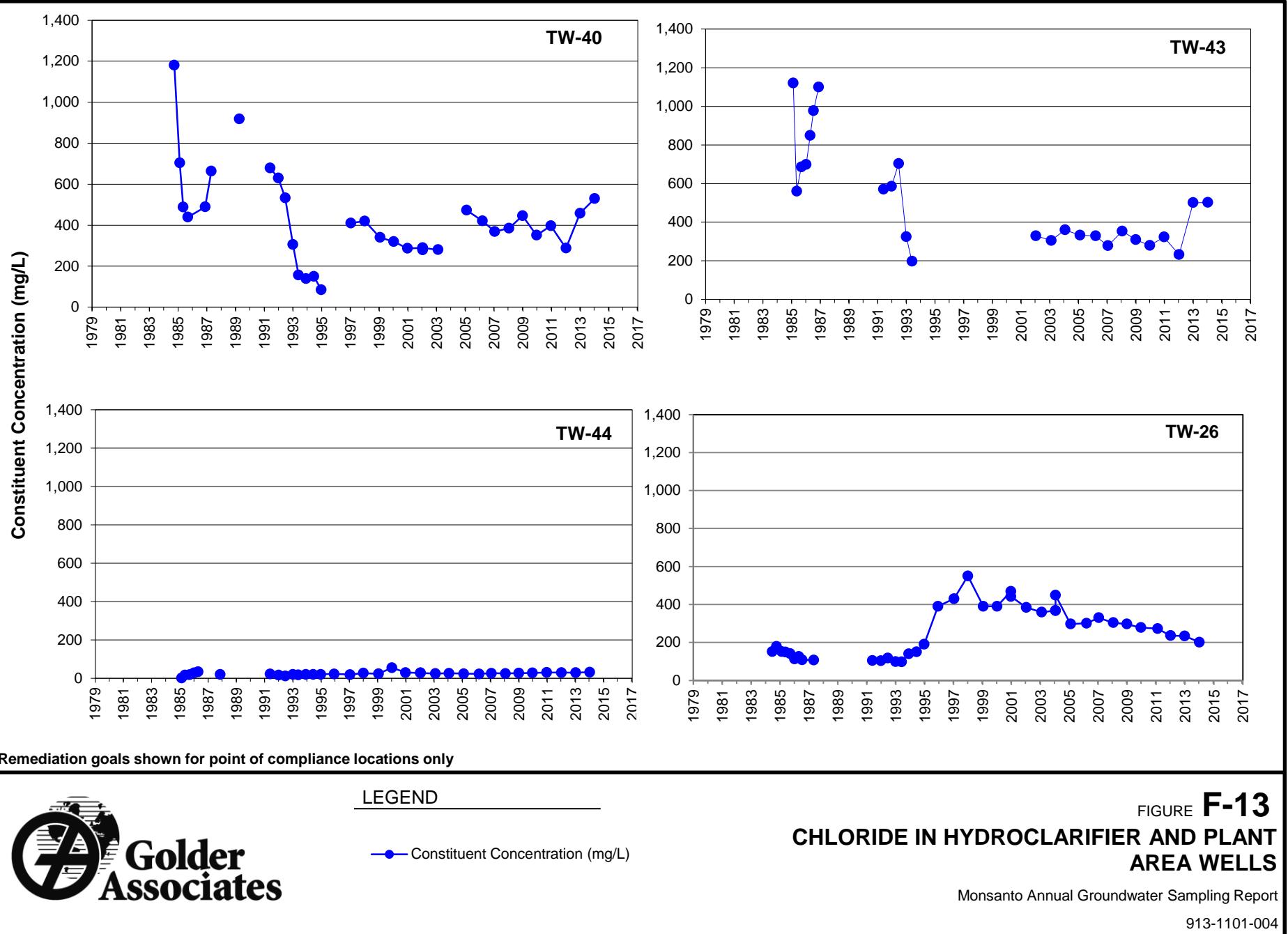


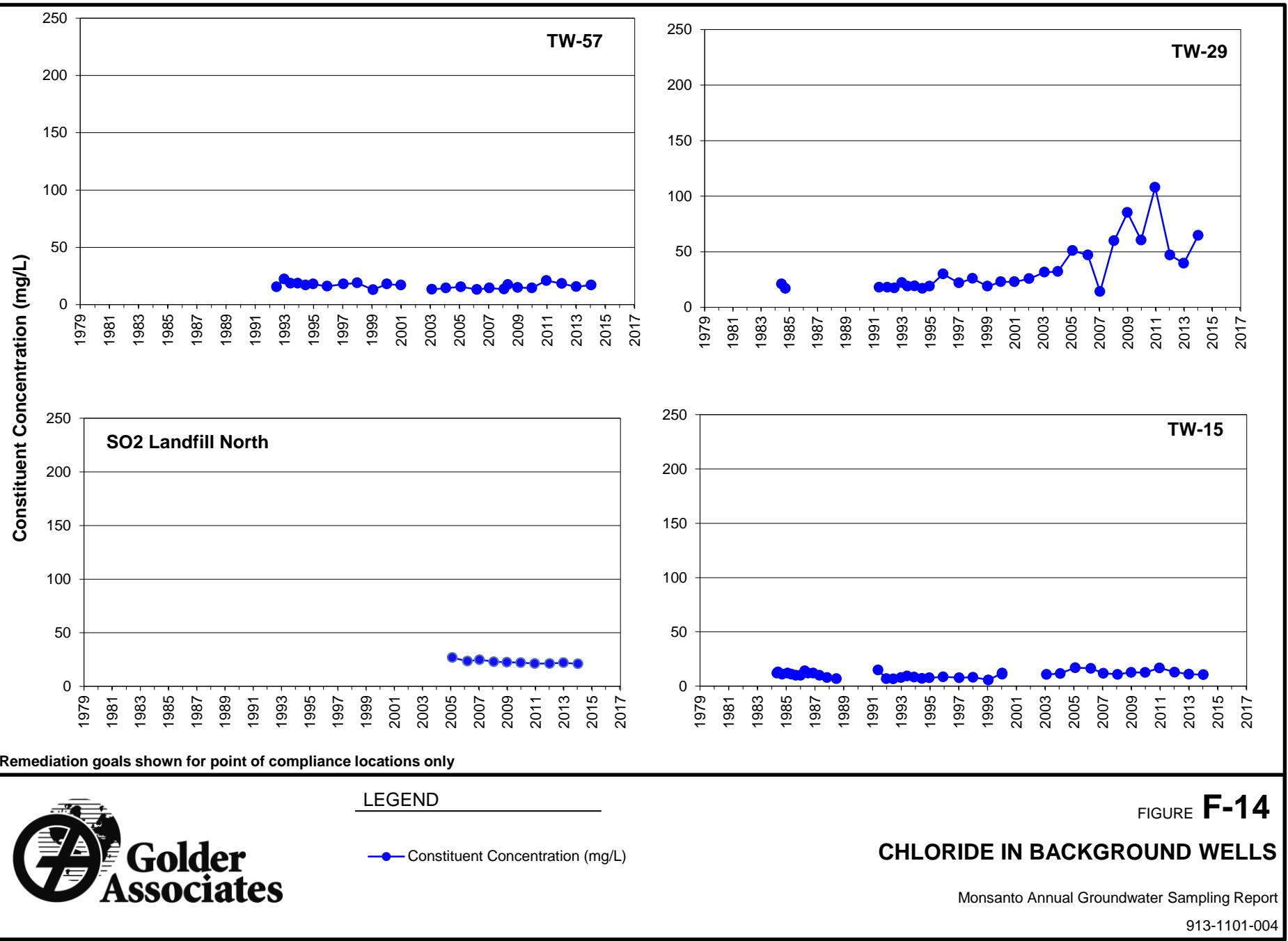
LEGEND
—●— Constituent Concentration (mg/L)

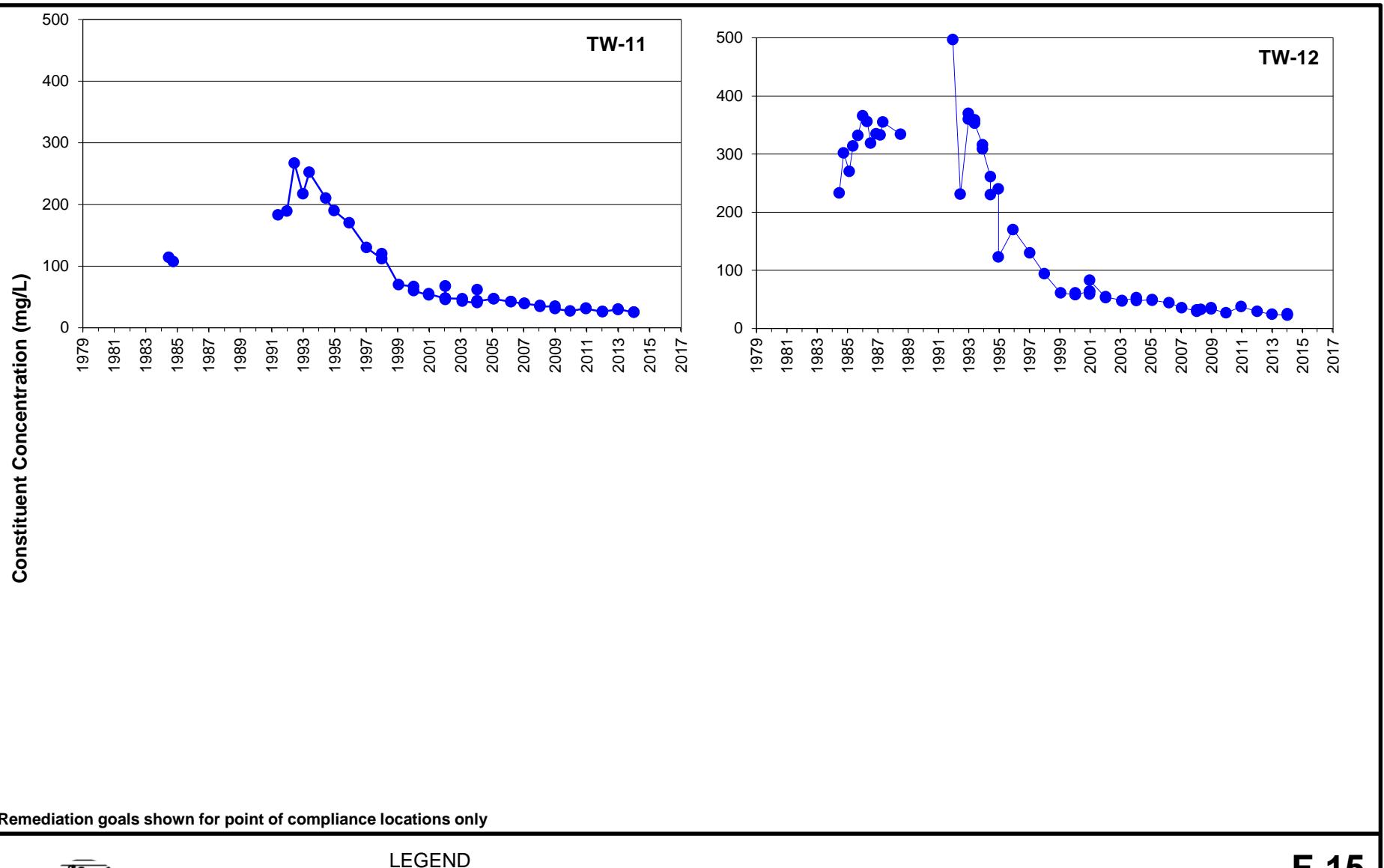
FIGURE F-12
**CHLORIDE IN UNDERFLOW SOLIDS PILES
AREA WELLS**

Monsanto Annual Groundwater Sampling Report

913-1101-004







LEGEND

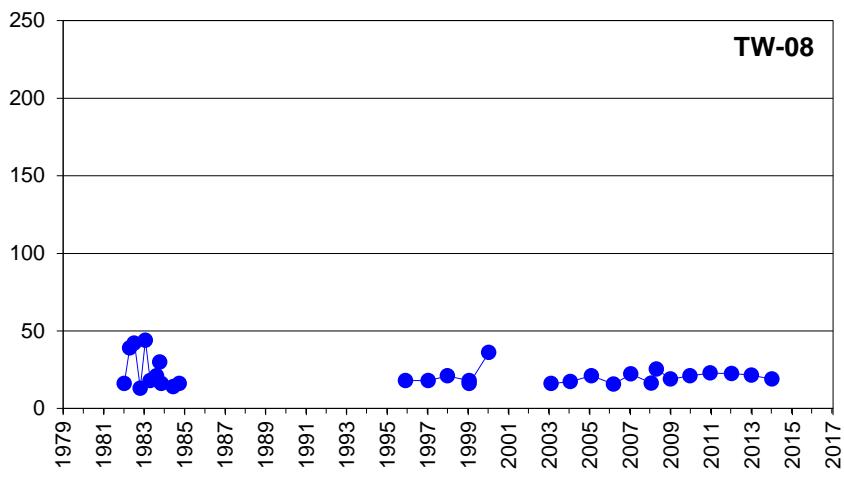
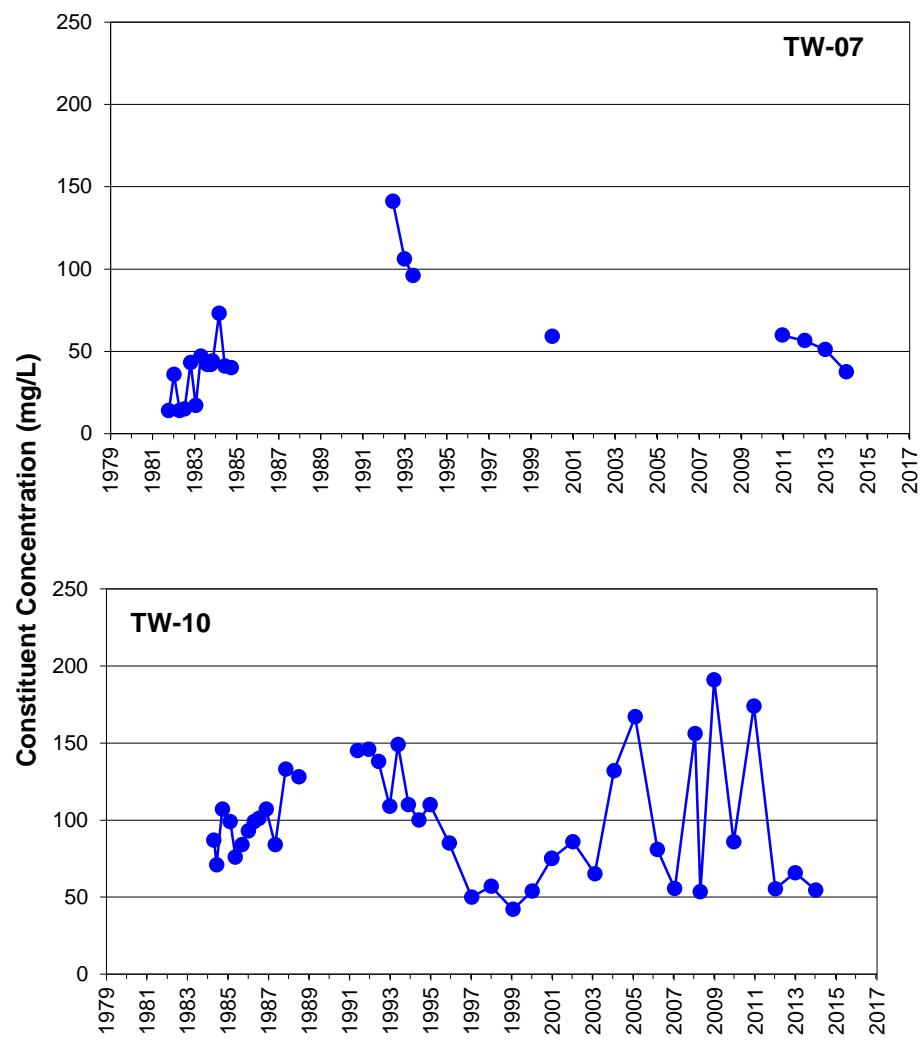
—●— Constituent Concentration (mg/L)

FIGURE F-15

CHLORIDE IN SOUTHEAST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

—●— Constituent Concentration (mg/L)

FIGURE F-16

CHLORIDE IN SOUTHWEST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004

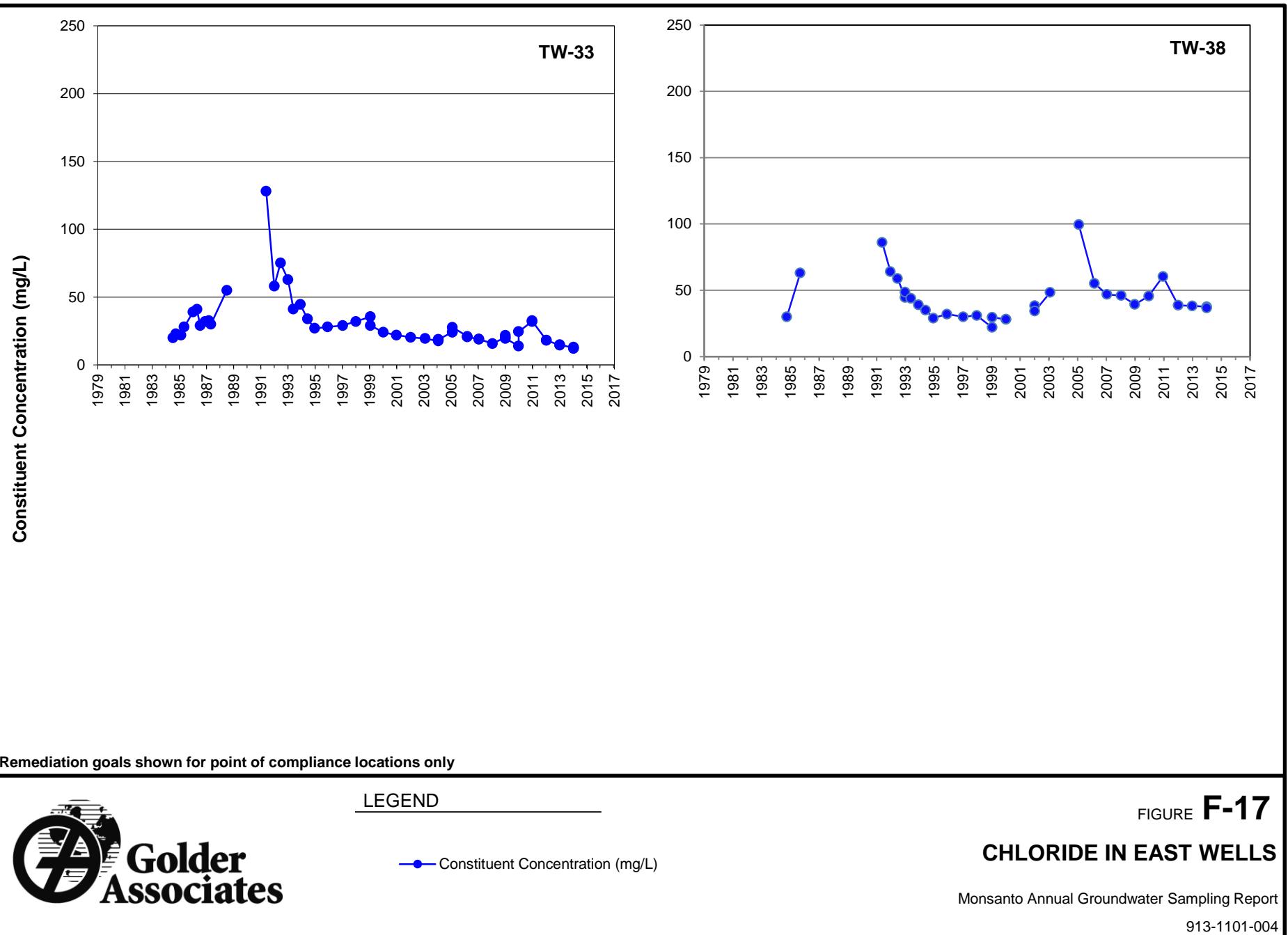
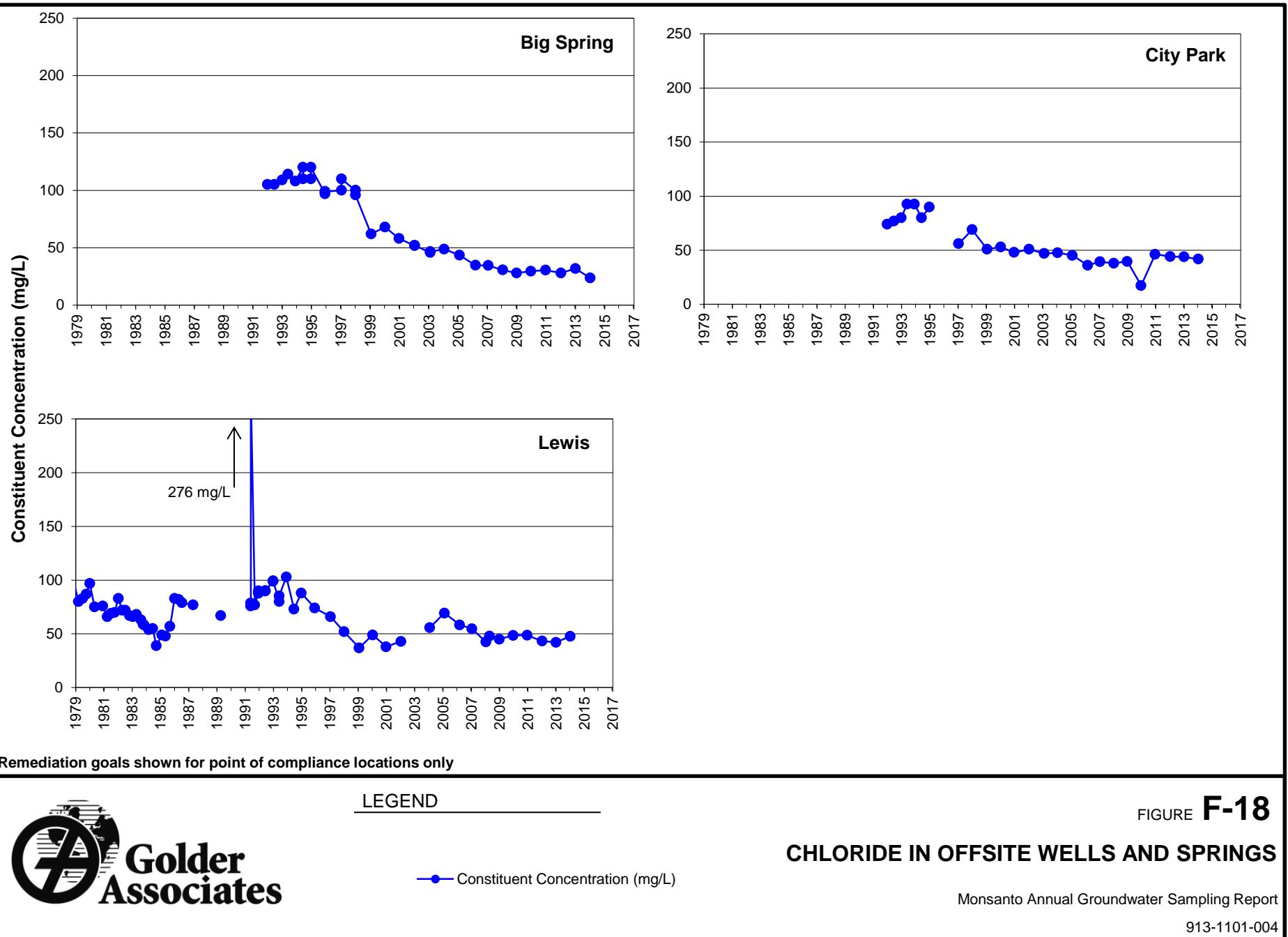


FIGURE F-17

CHLORIDE IN EAST WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



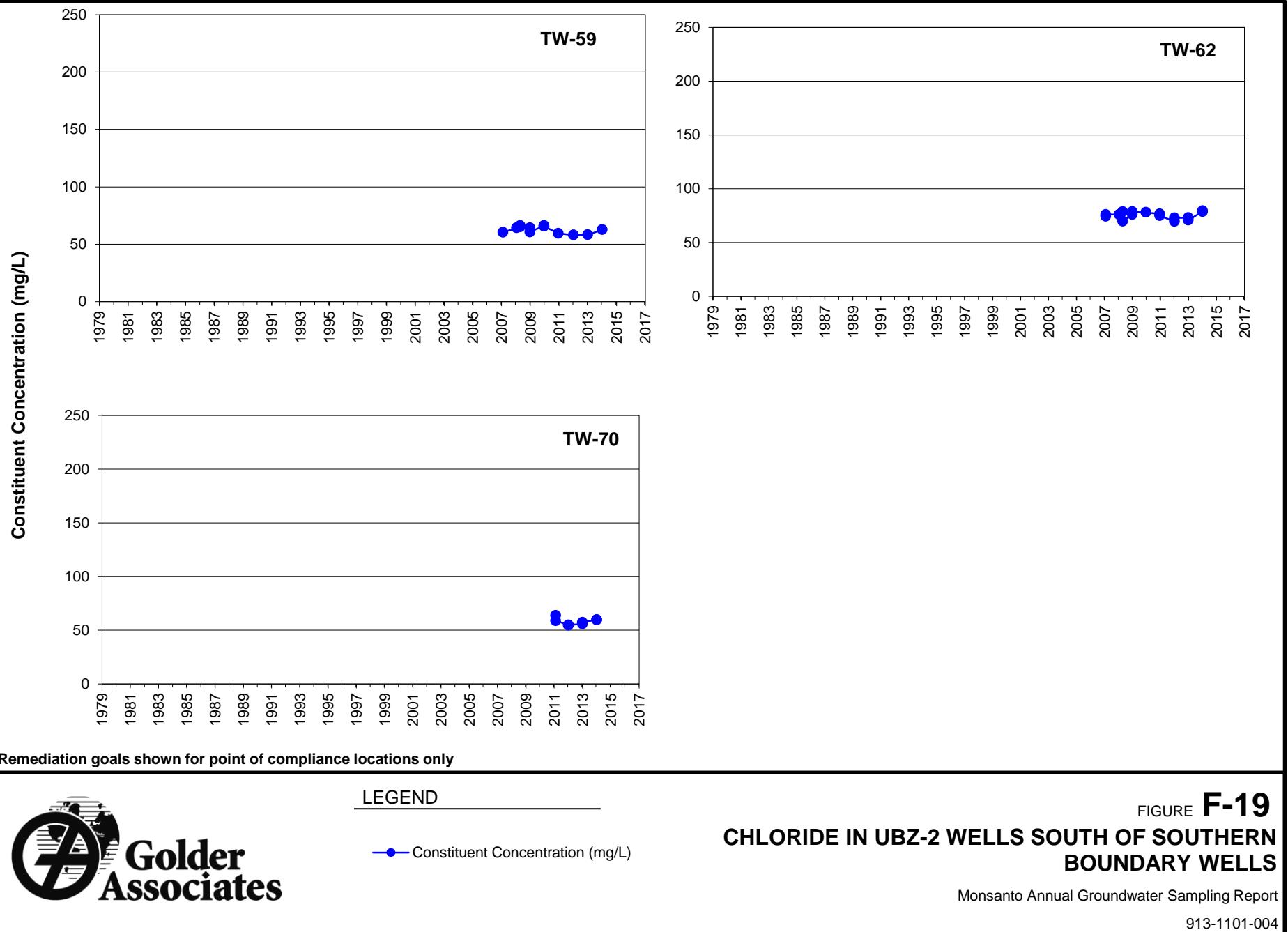
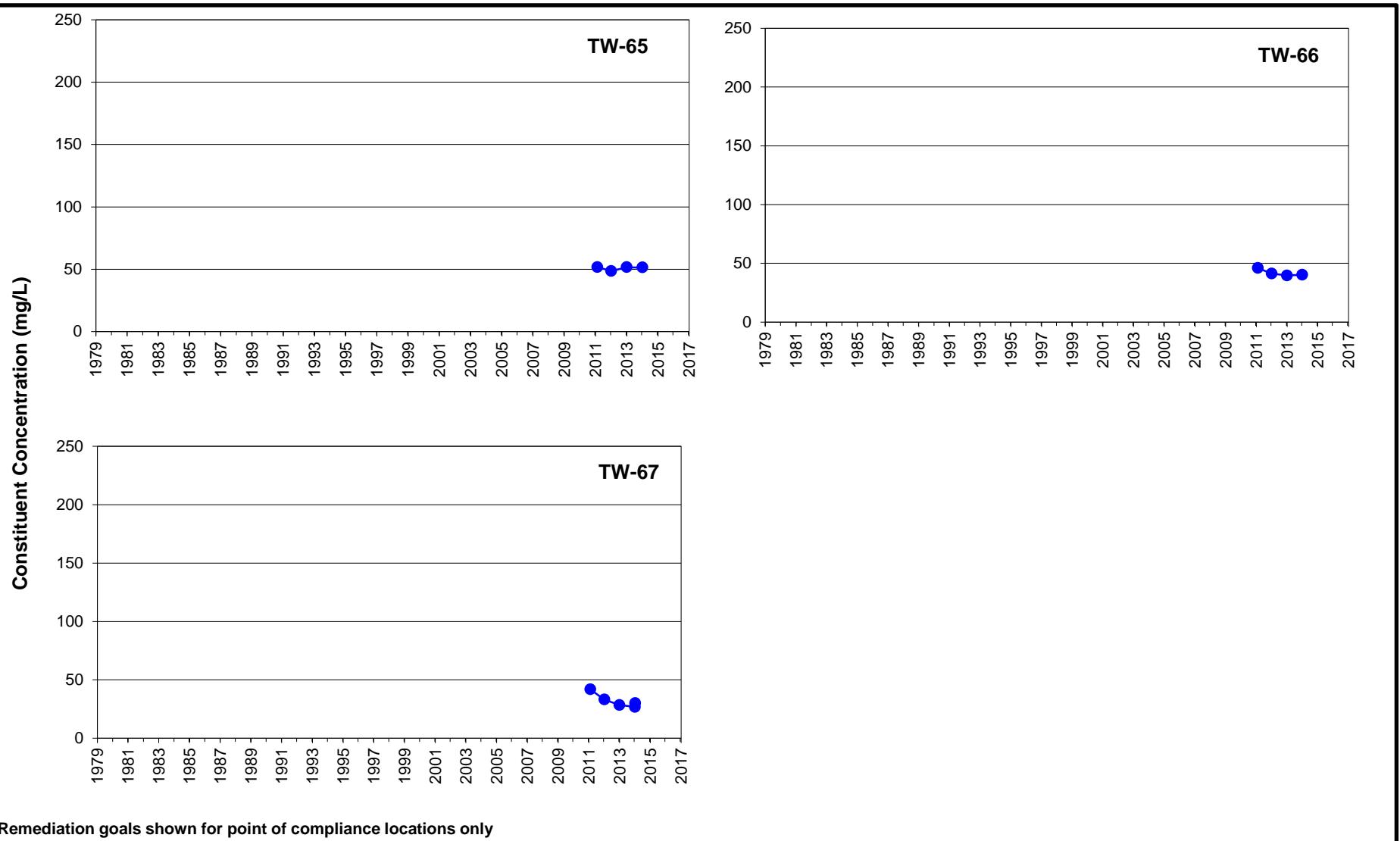


FIGURE F-19
CHLORIDE IN UBZ-2 WELLS SOUTH OF SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

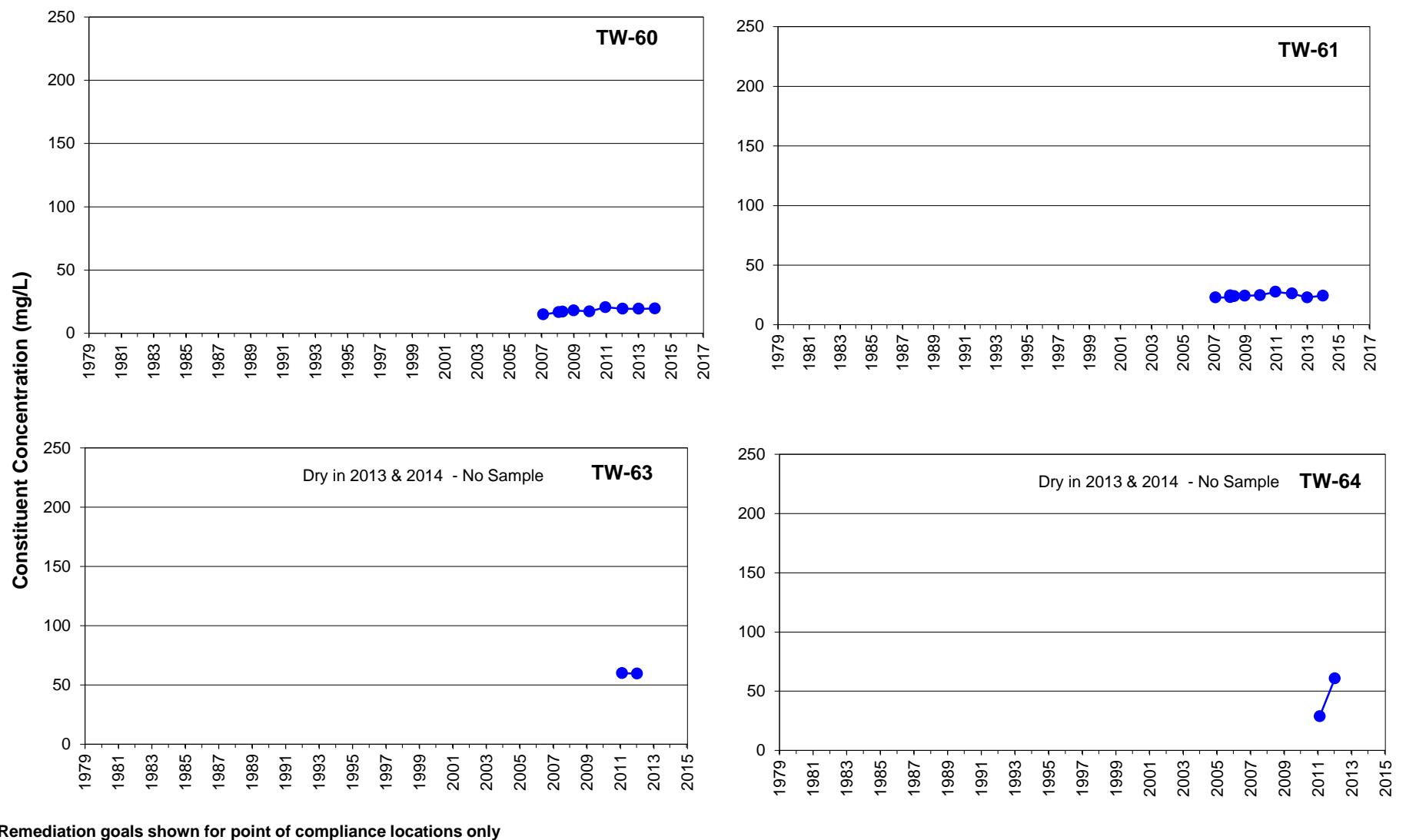
—●— Constituent Concentration (mg/L)

FIGURE F-20

CHLORIDE IN UBZ-2 WELLS AT PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

● Constituent Concentration (mg/L)

FIGURE F-21

CHLORIDE IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004

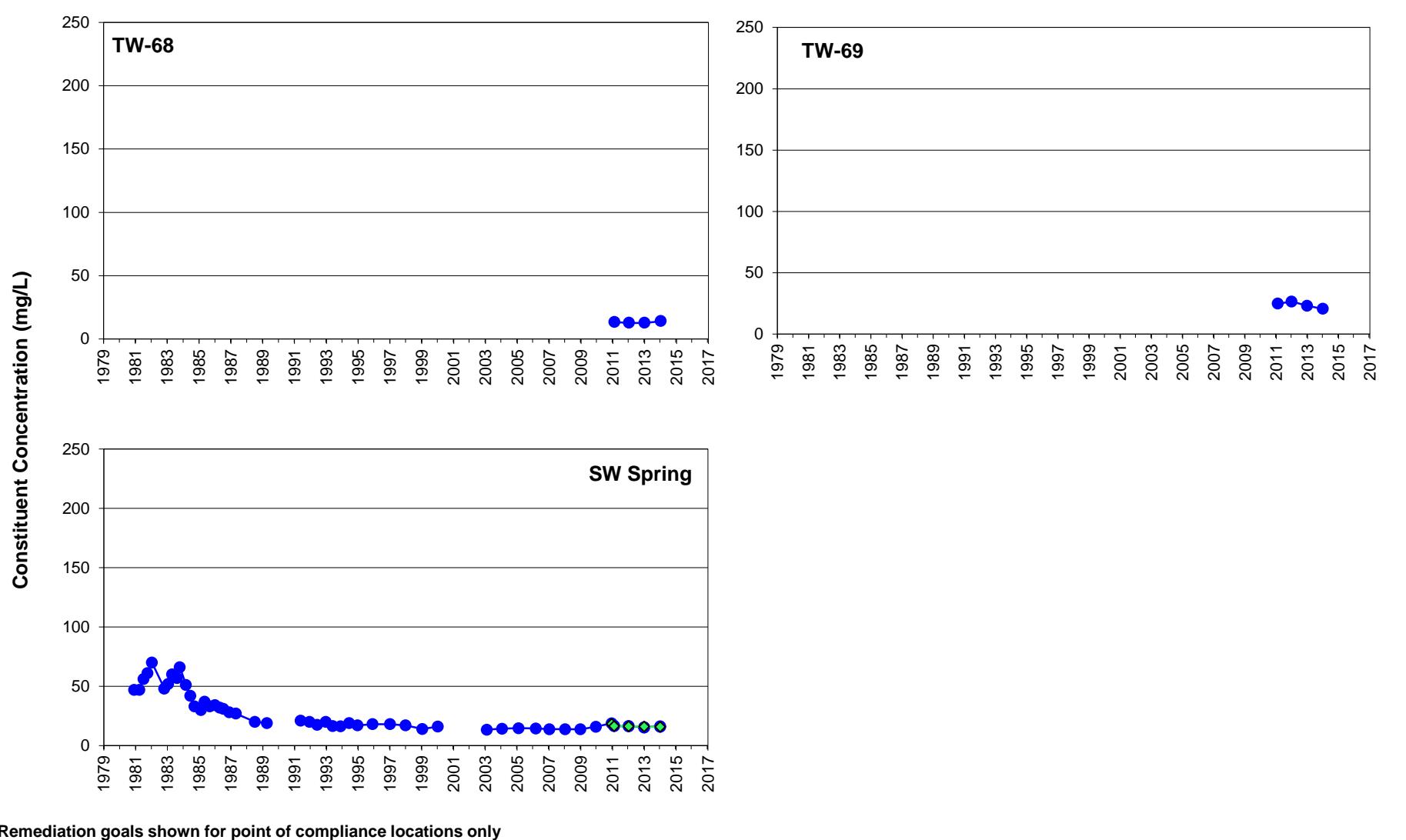


FIGURE F-22

CHLORIDE IN UBZ-1 WELLS AND SPRINGS WEST OF THE PLANT

Monsanto Annual Groundwater Sampling Report

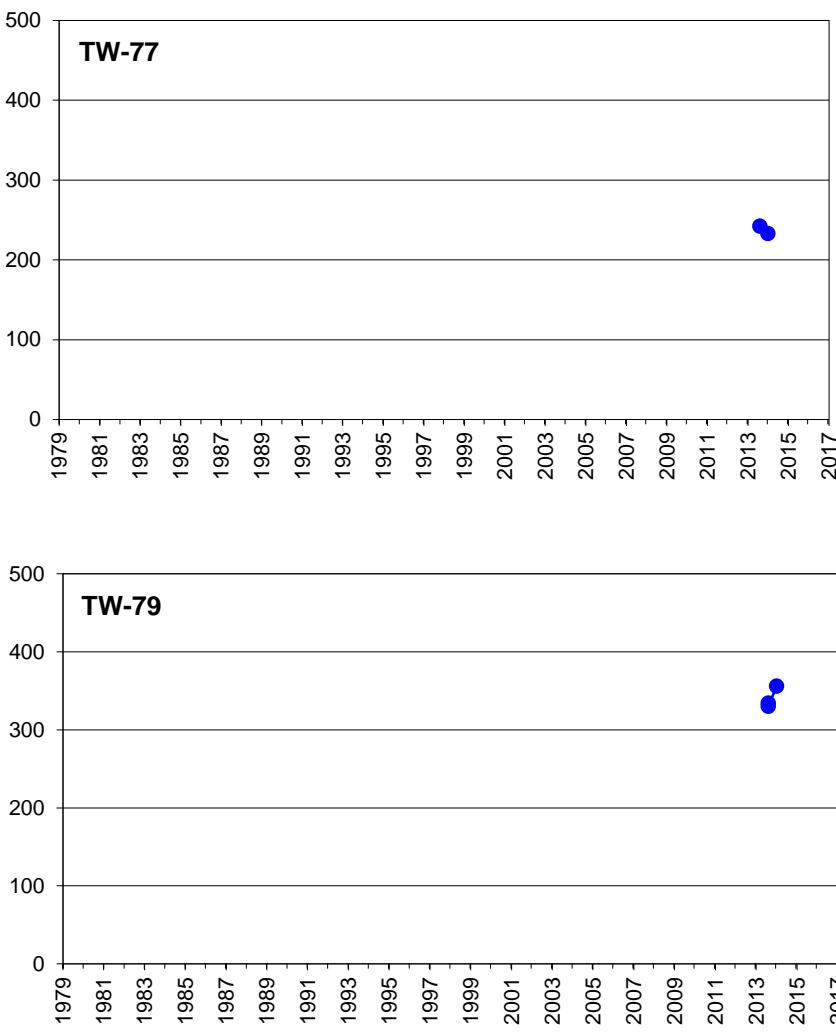
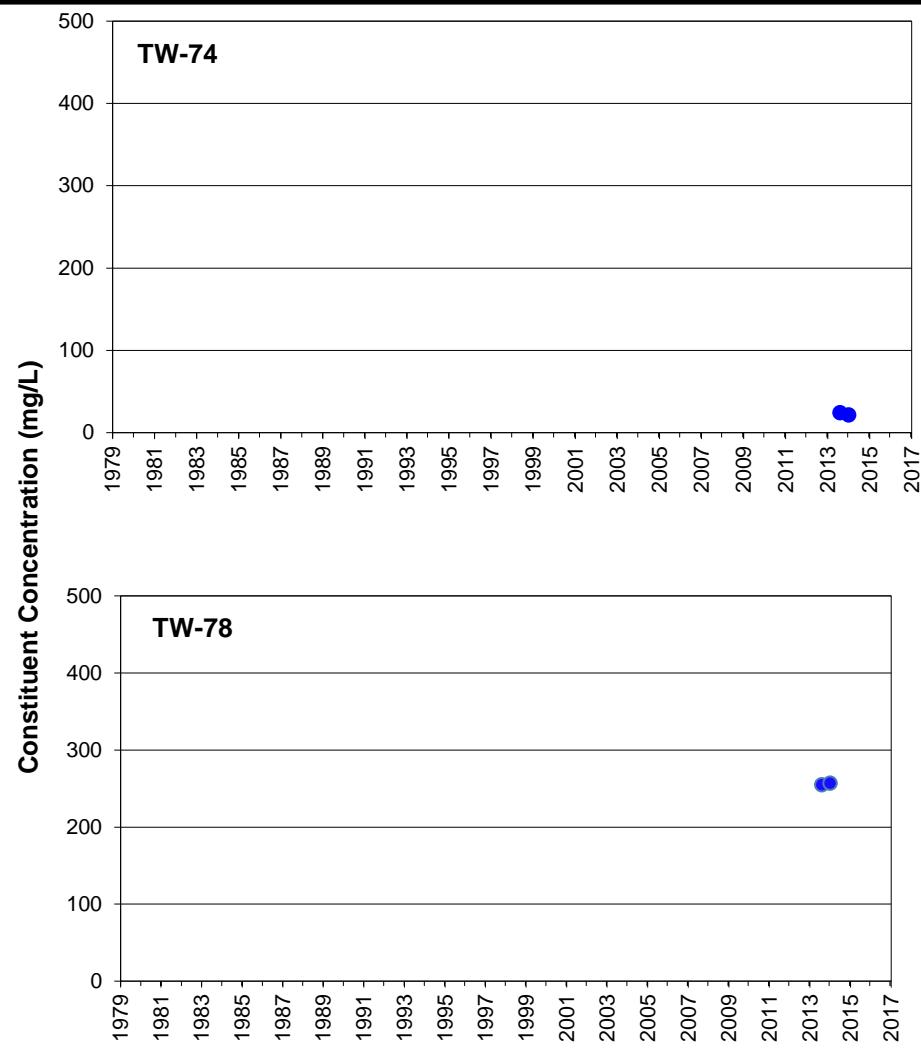
913-1101-004



LEGEND

—●— Constituent Concentration (mg/L)

—◆— SW Spring above confluence with Soda Creek



Remediation goals shown for point of compliance locations only



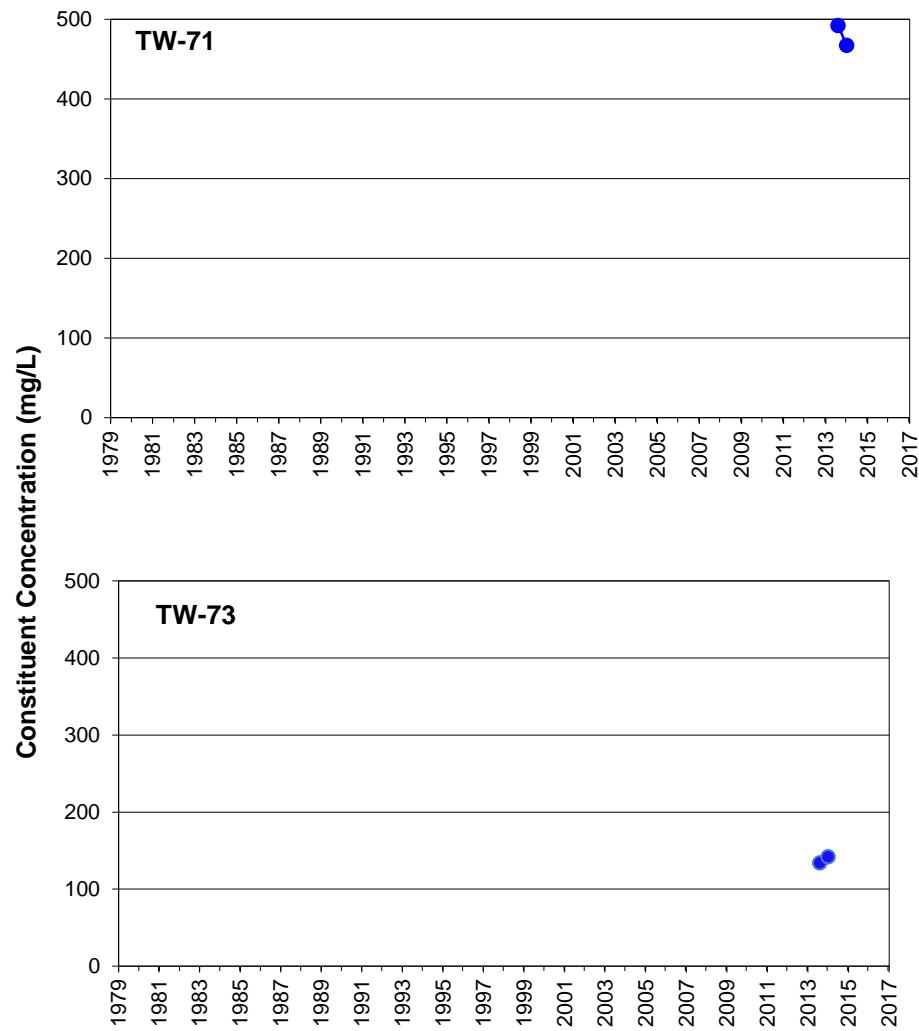
LEGEND

Constituent Concentration (mg/L)

FIGURE F-23
CHLORIDE IN UBZ-4 TAILINGS POND
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



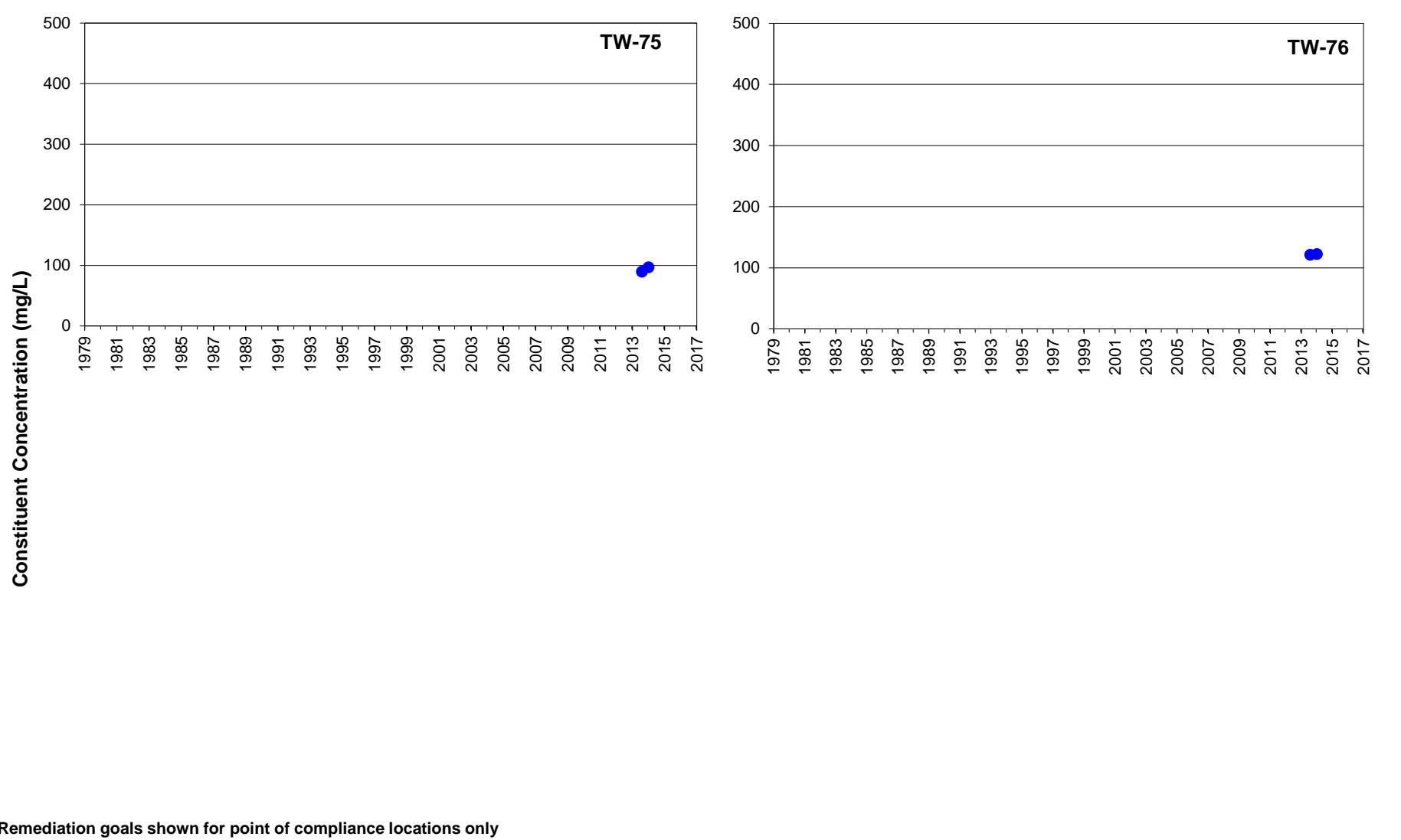
LEGEND

- Constituent Concentration (mg/L)

FIGURE F-24
CHLORIDE IN UBZ-2 OLD UFS PONDS SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

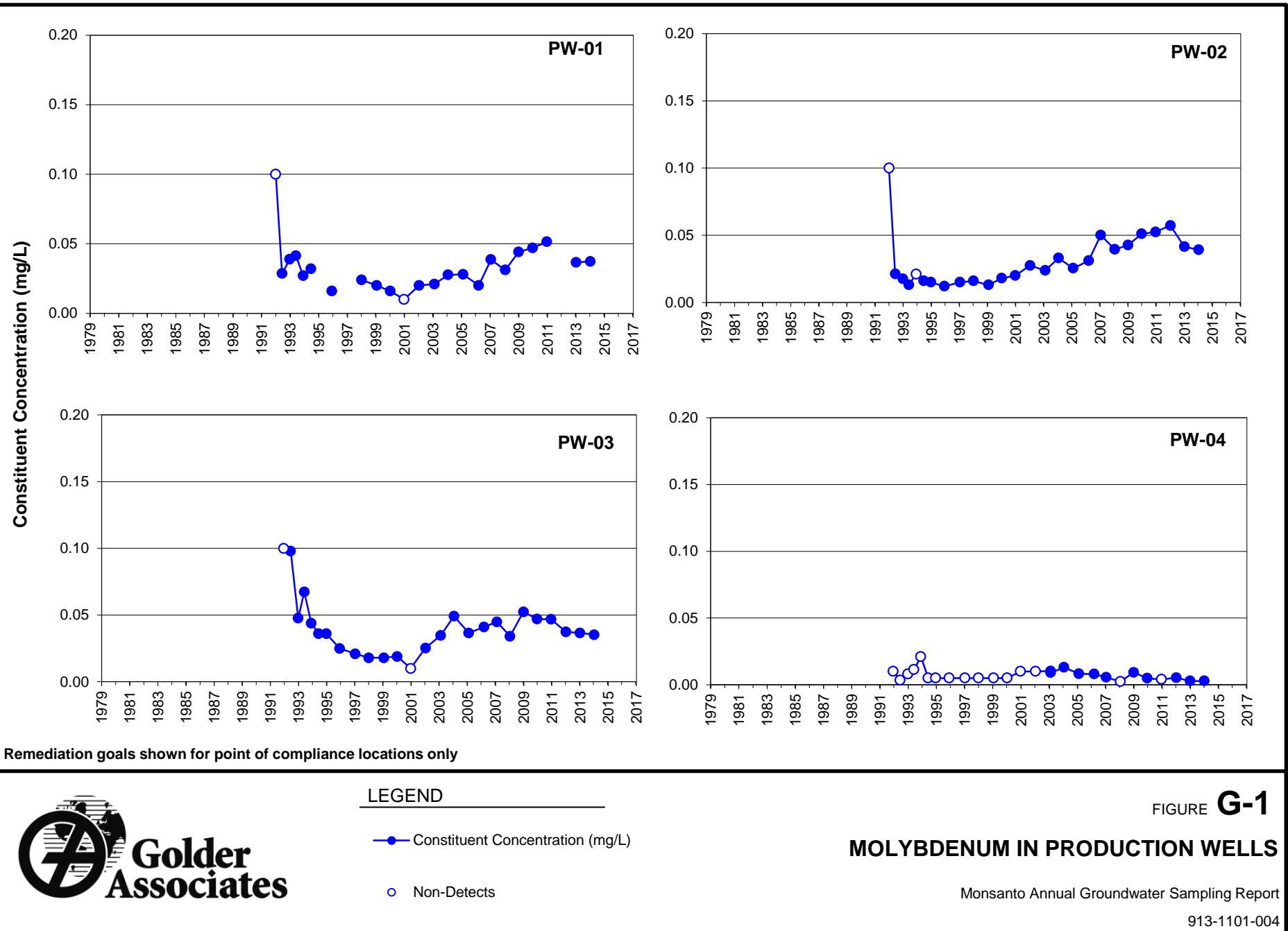
—●— Constituent Concentration (mg/L)

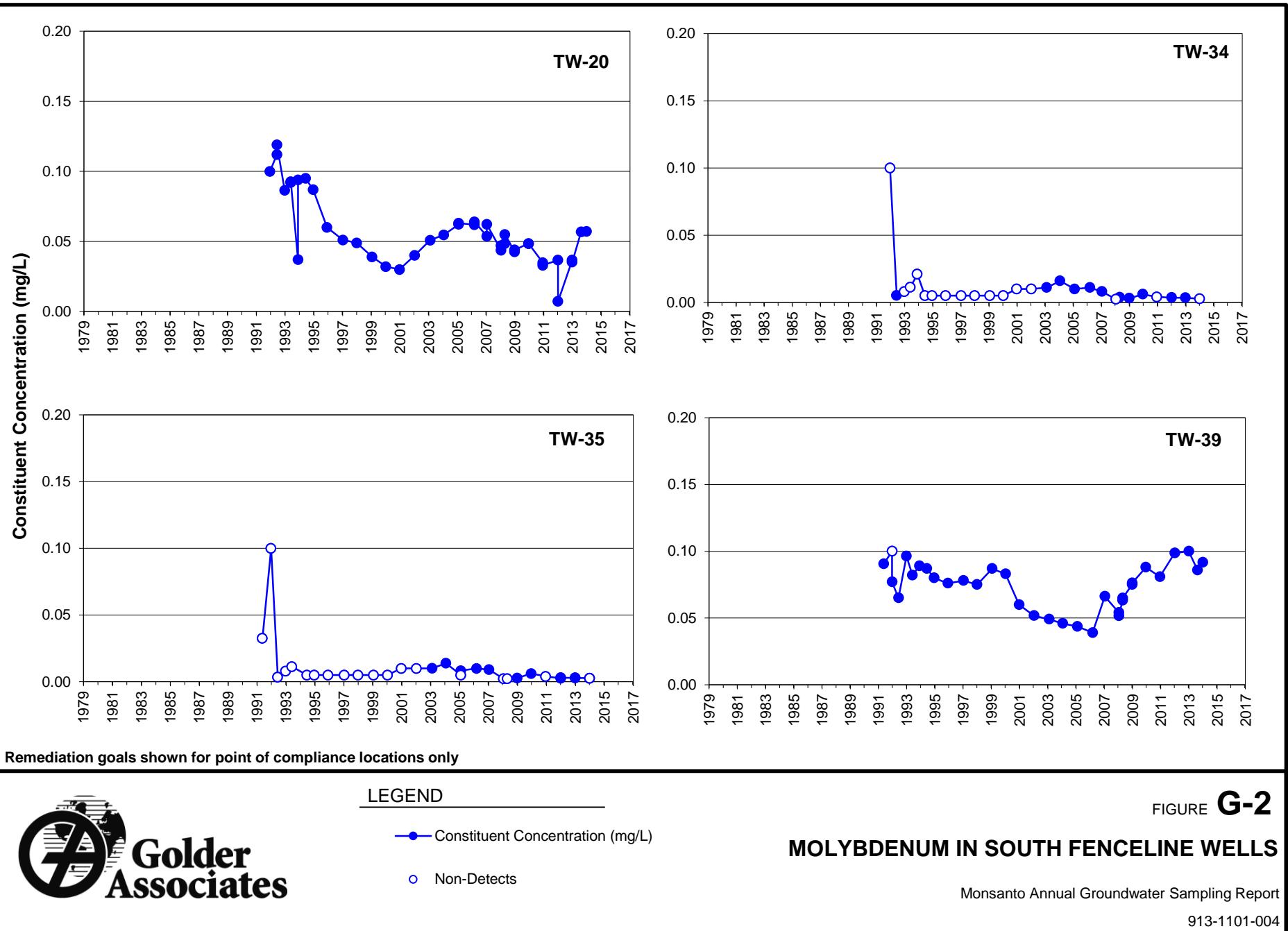
FIGURE F-25
CHLORIDE IN UBZ-2 TAILINGS POND
SOURCE AREA

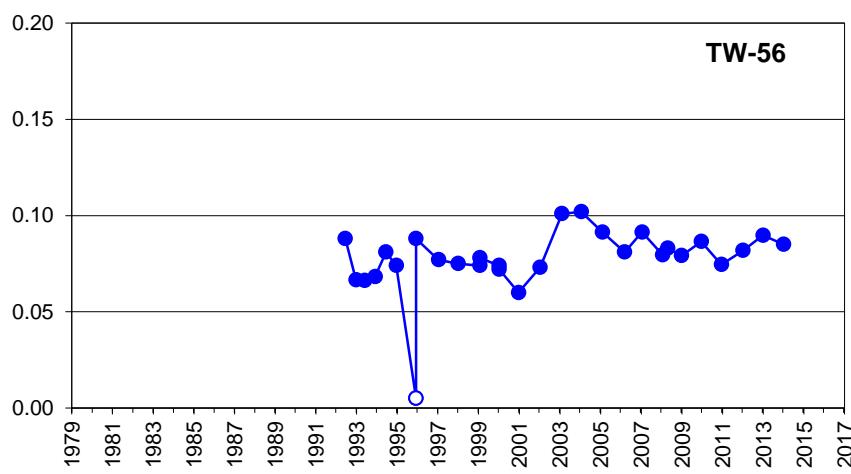
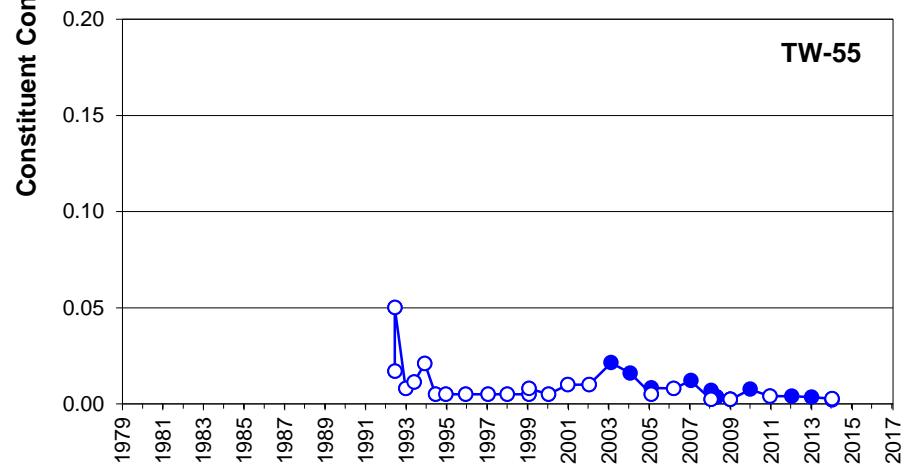
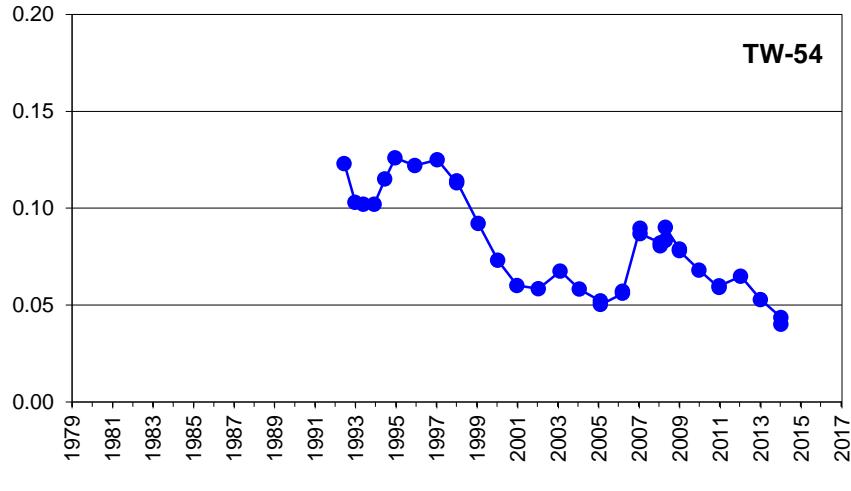
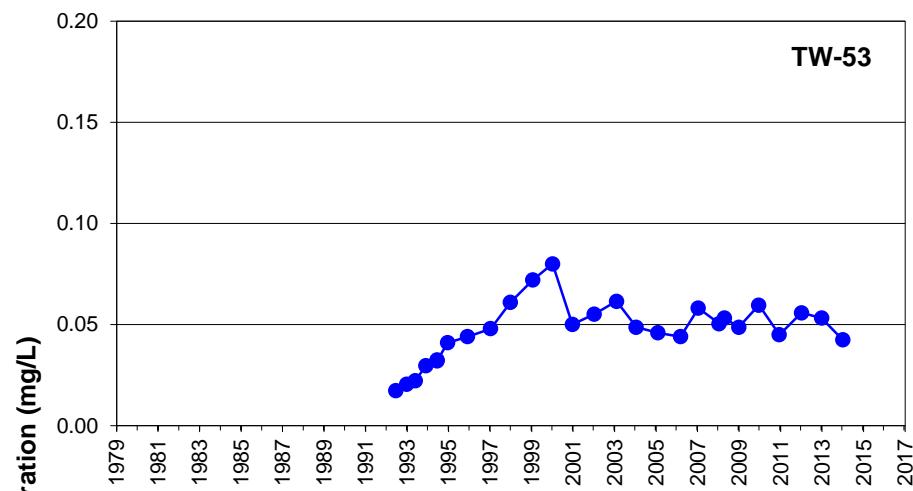
Monsanto Annual Groundwater Sampling Report

913-1101-004

APPENDIX G
TIME-HISTORY GRAPHS FOR MOLYBDENUM







Remediation goals shown for point of compliance locations only

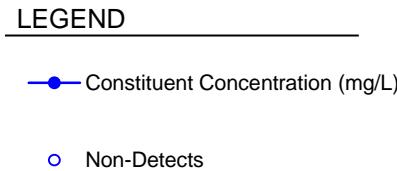
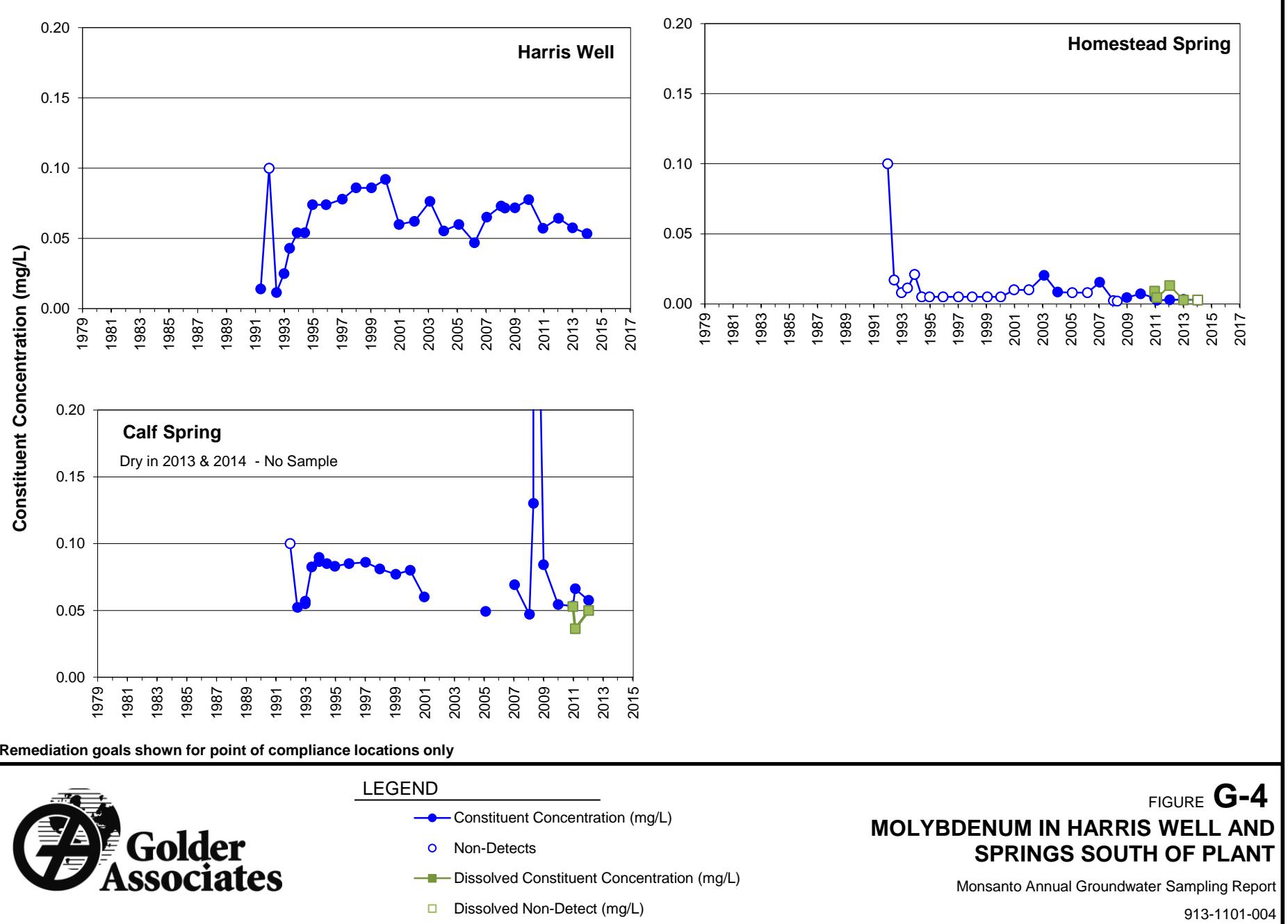


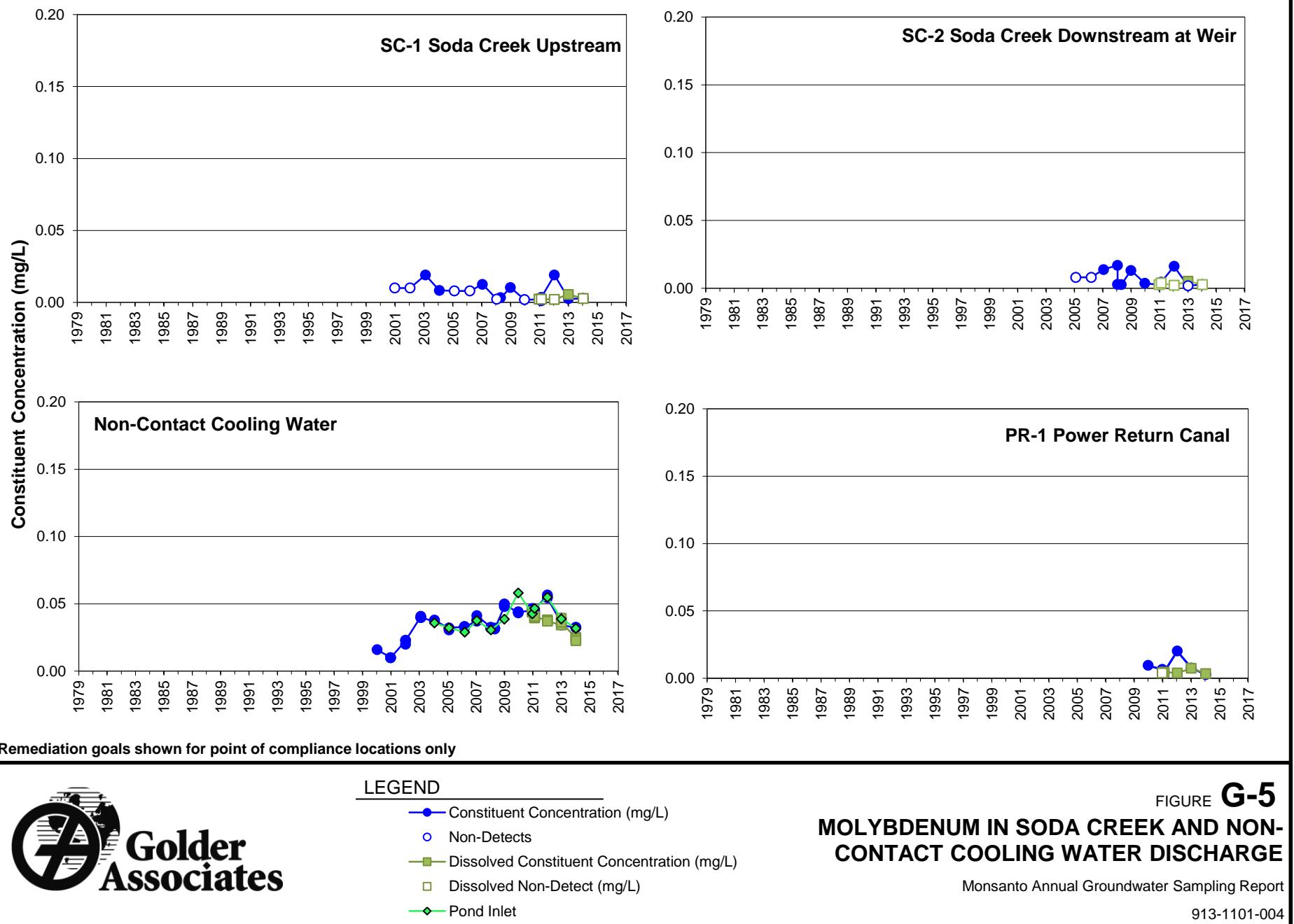
FIGURE G-3

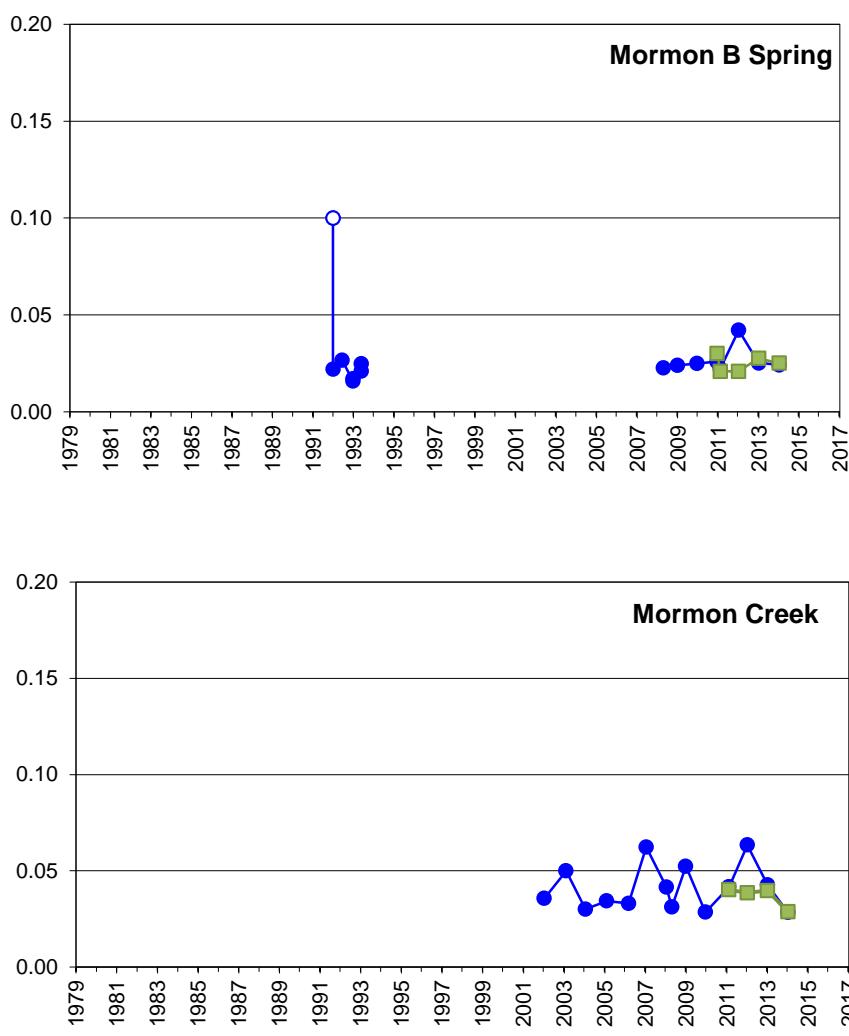
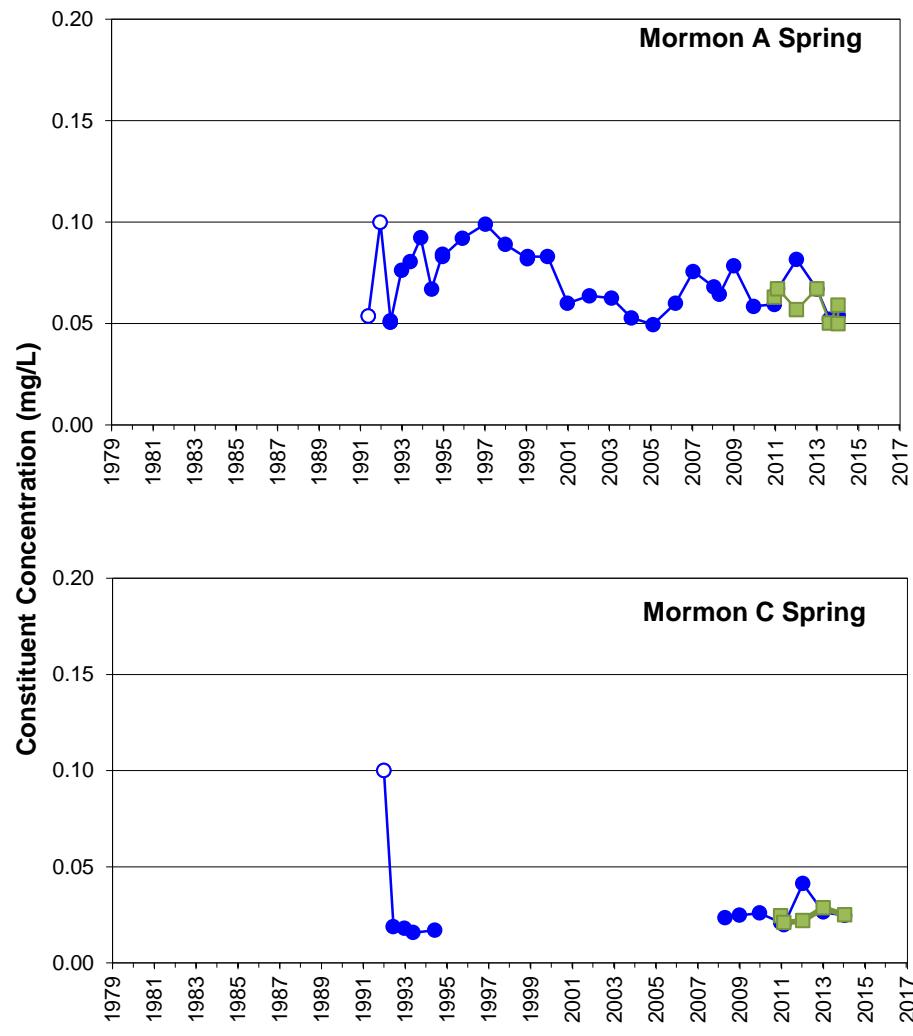
MOLYBDENUM IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004







Remediation goals shown for point of compliance locations only



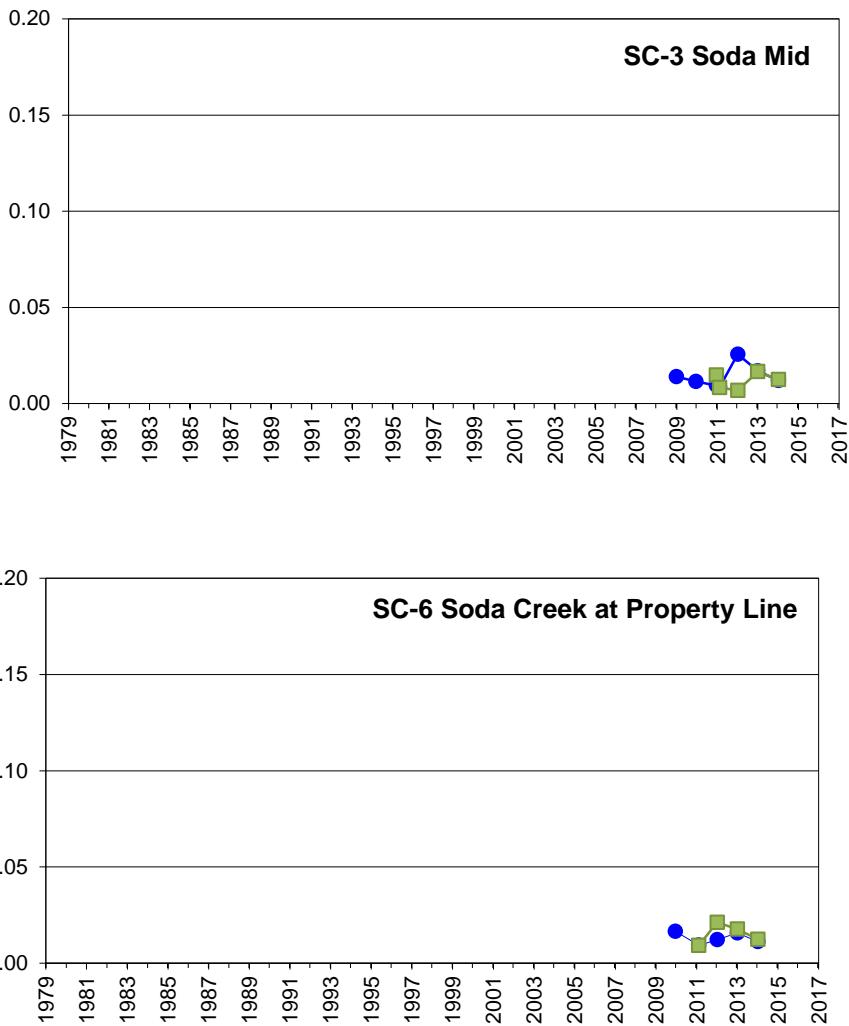
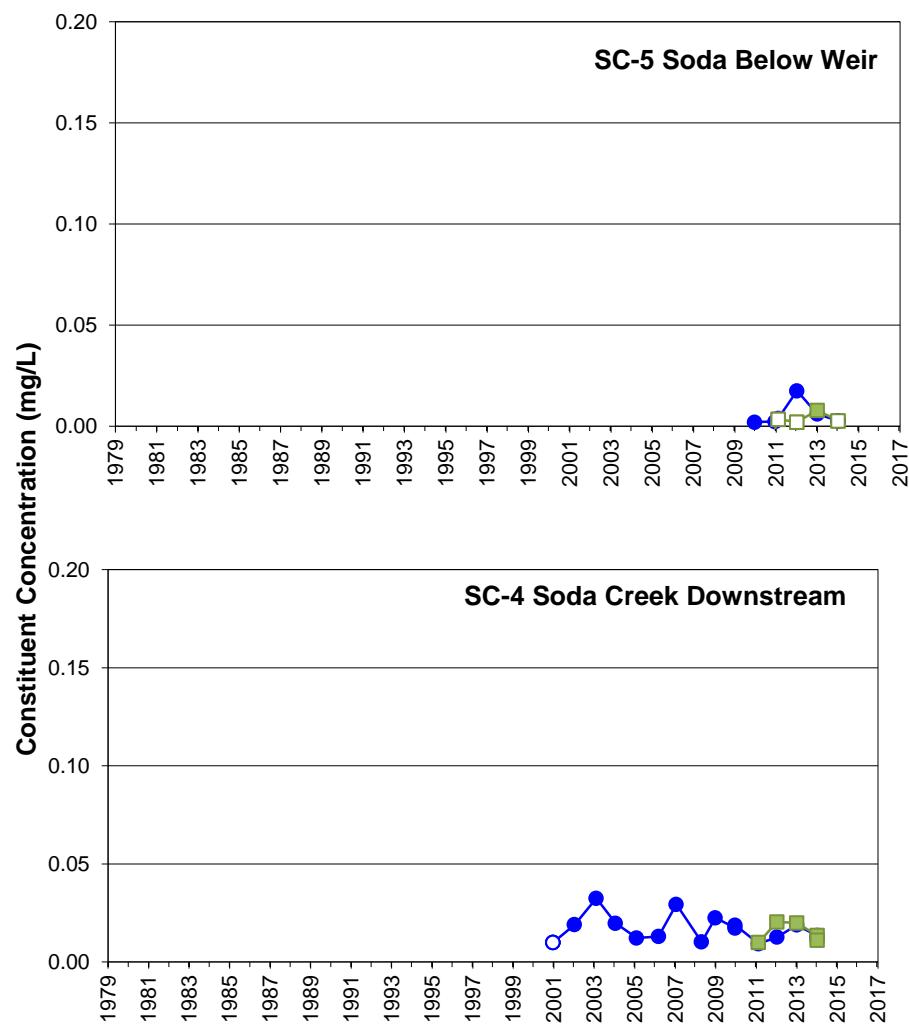
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

FIGURE G-6
MOLYBDENUM IN MORMON A, B, AND C SPRINGS AND MORMON CREEK

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



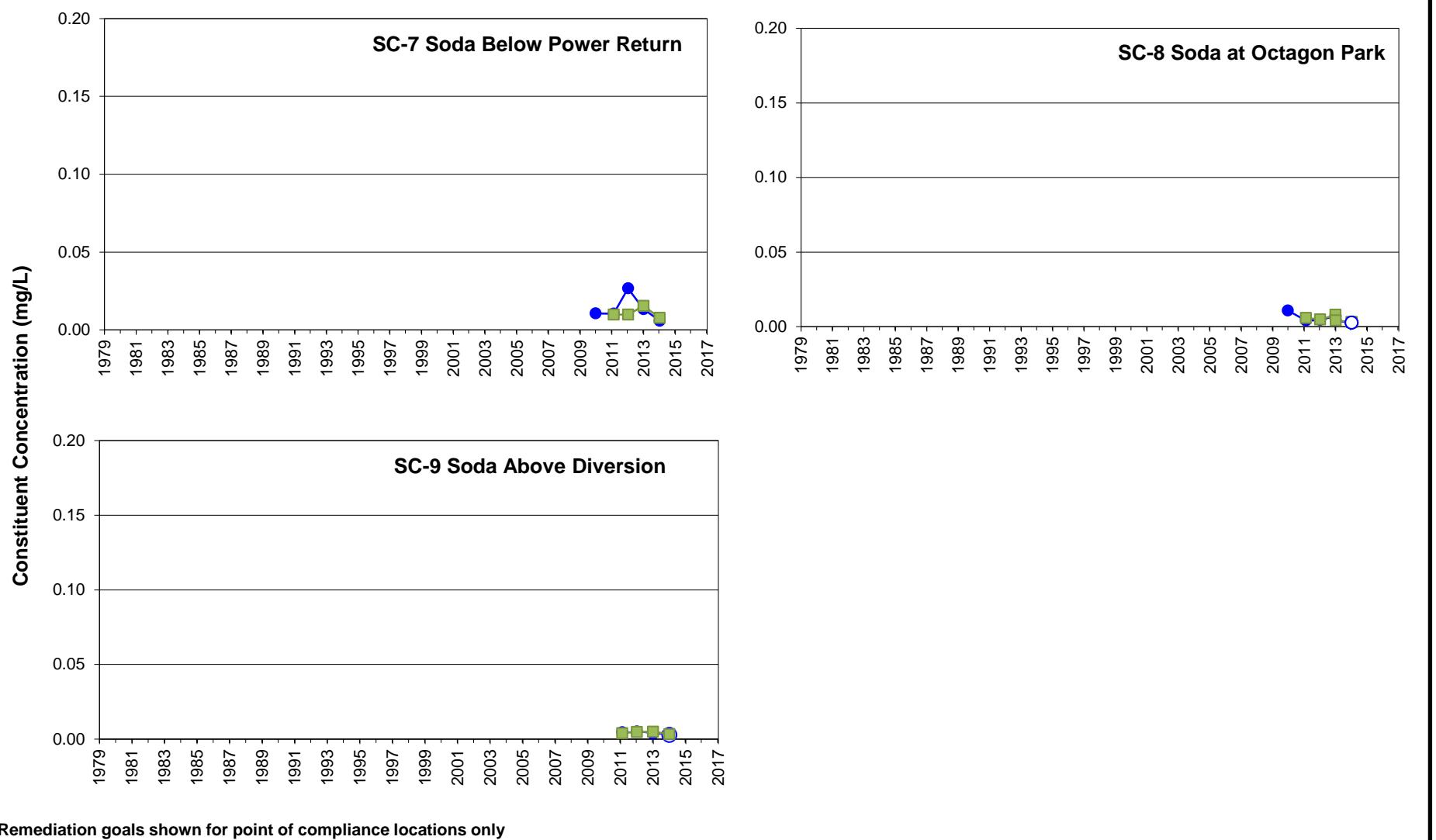
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

FIGURE G-7
MOLYBDENUM IN SODA CREEK - WEIR TO PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004

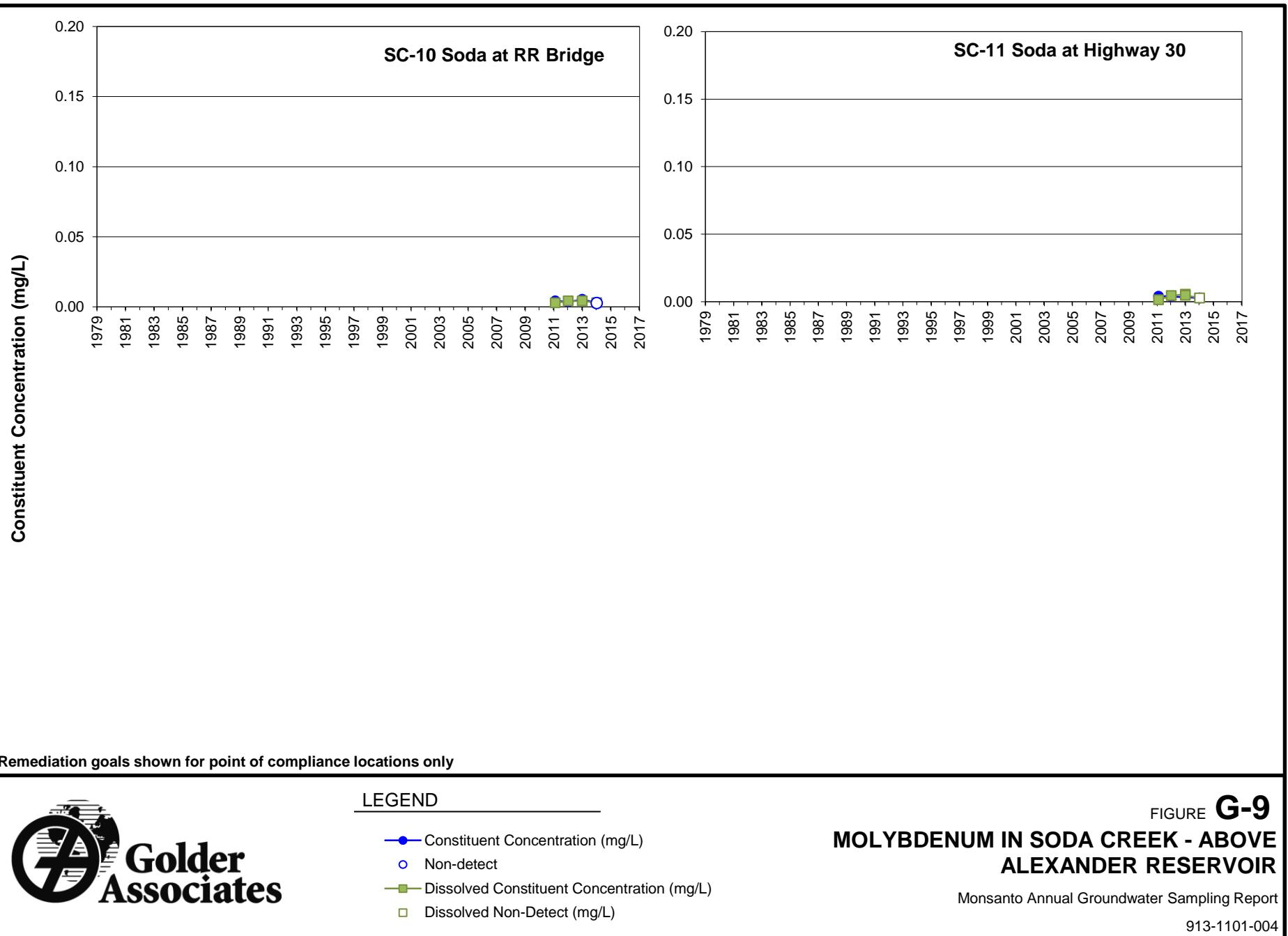


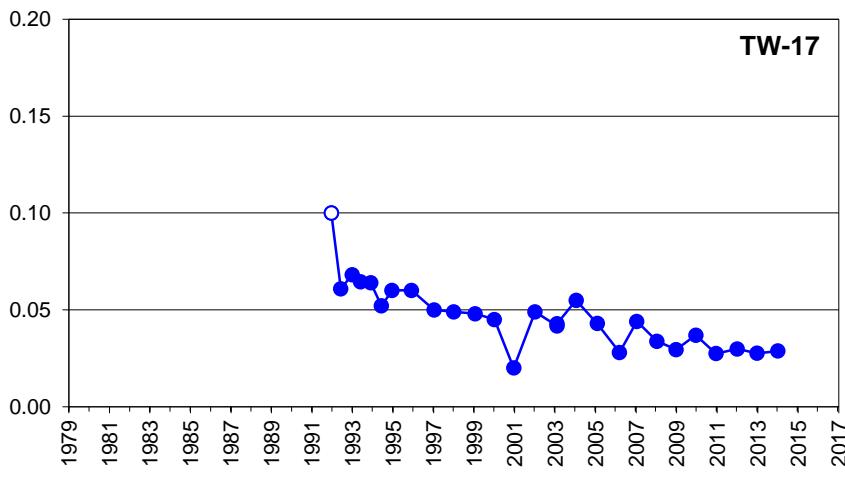
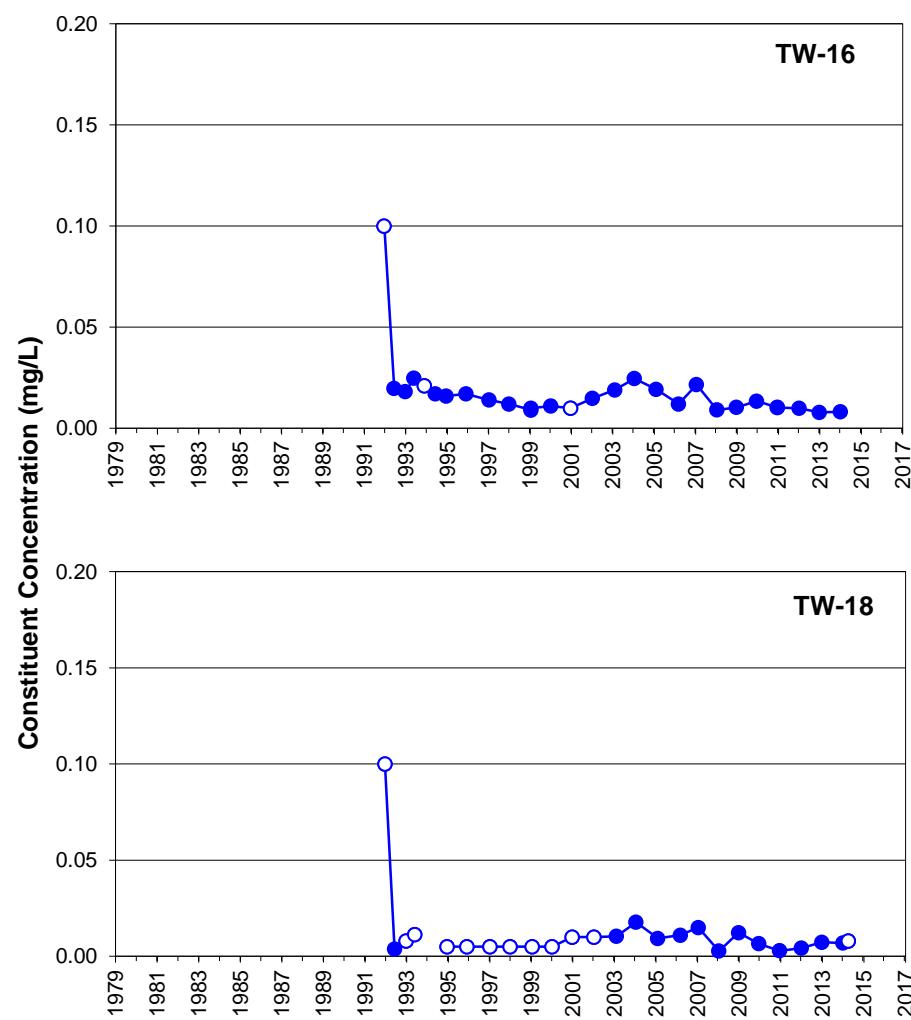
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

FIGURE G-8
MOLYBDENUM IN SODA CREEK - BELOW PROPERTY LINE

Monsanto Annual Groundwater Sampling Report
913-1101-004





Remediation goals shown for point of compliance locations only



LEGEND

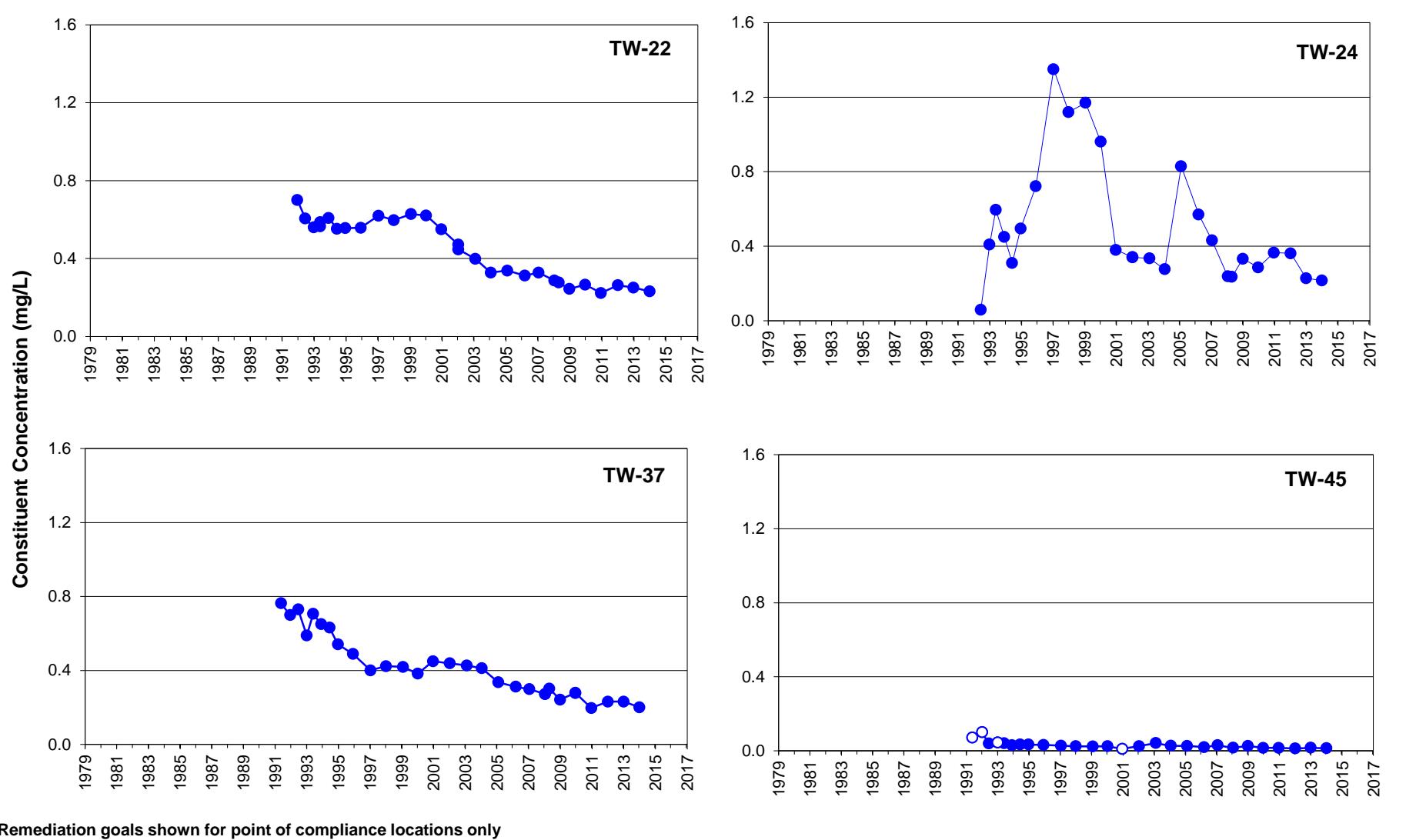
- Constituent Concentration (mg/L)
- Non-Detects

FIGURE G-10

MOLYBDENUM IN NW POND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



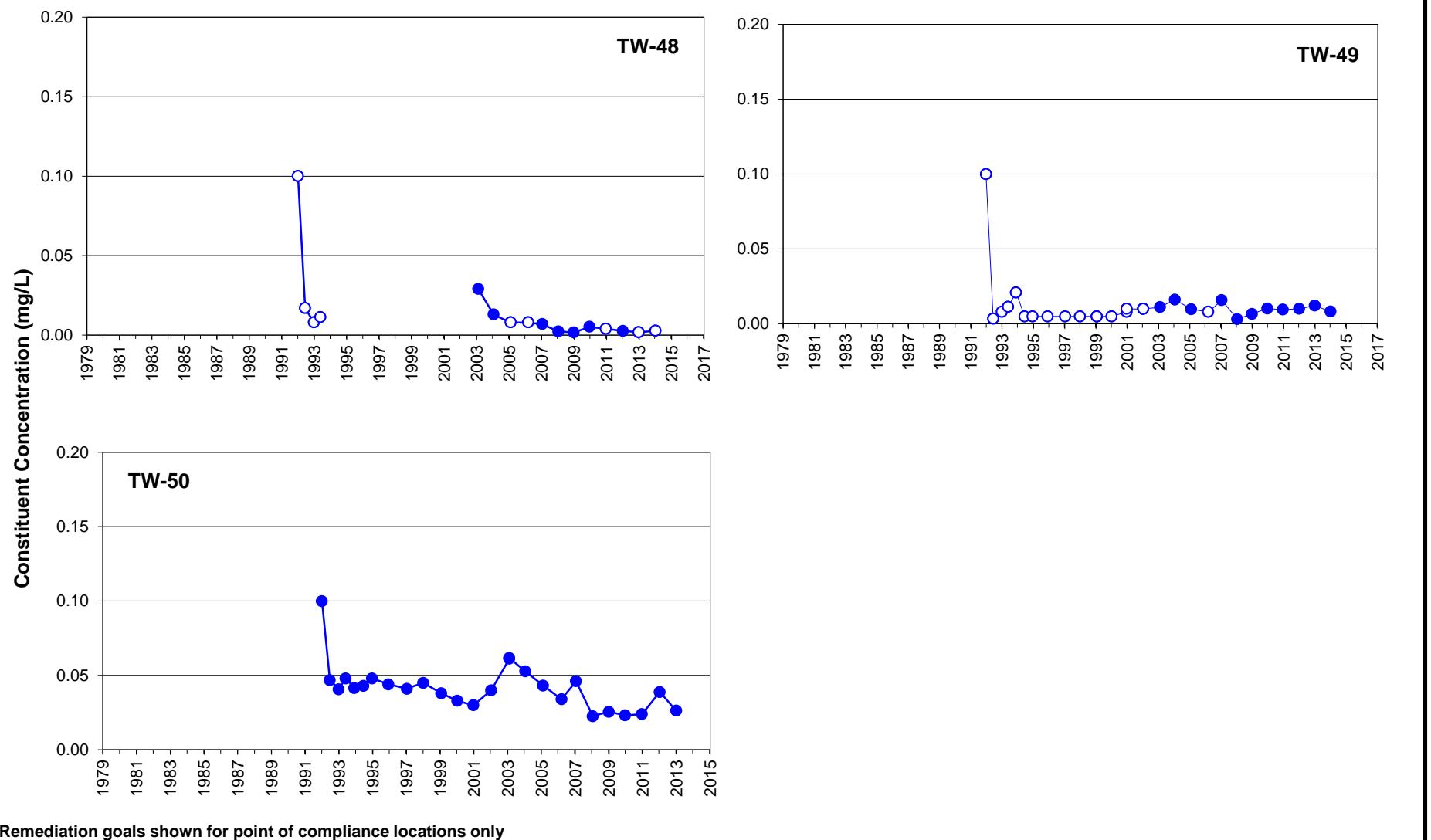
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects

FIGURE G-11
MOLYBDENUM IN OLD
UNDERFLOW SOLIDS POND AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



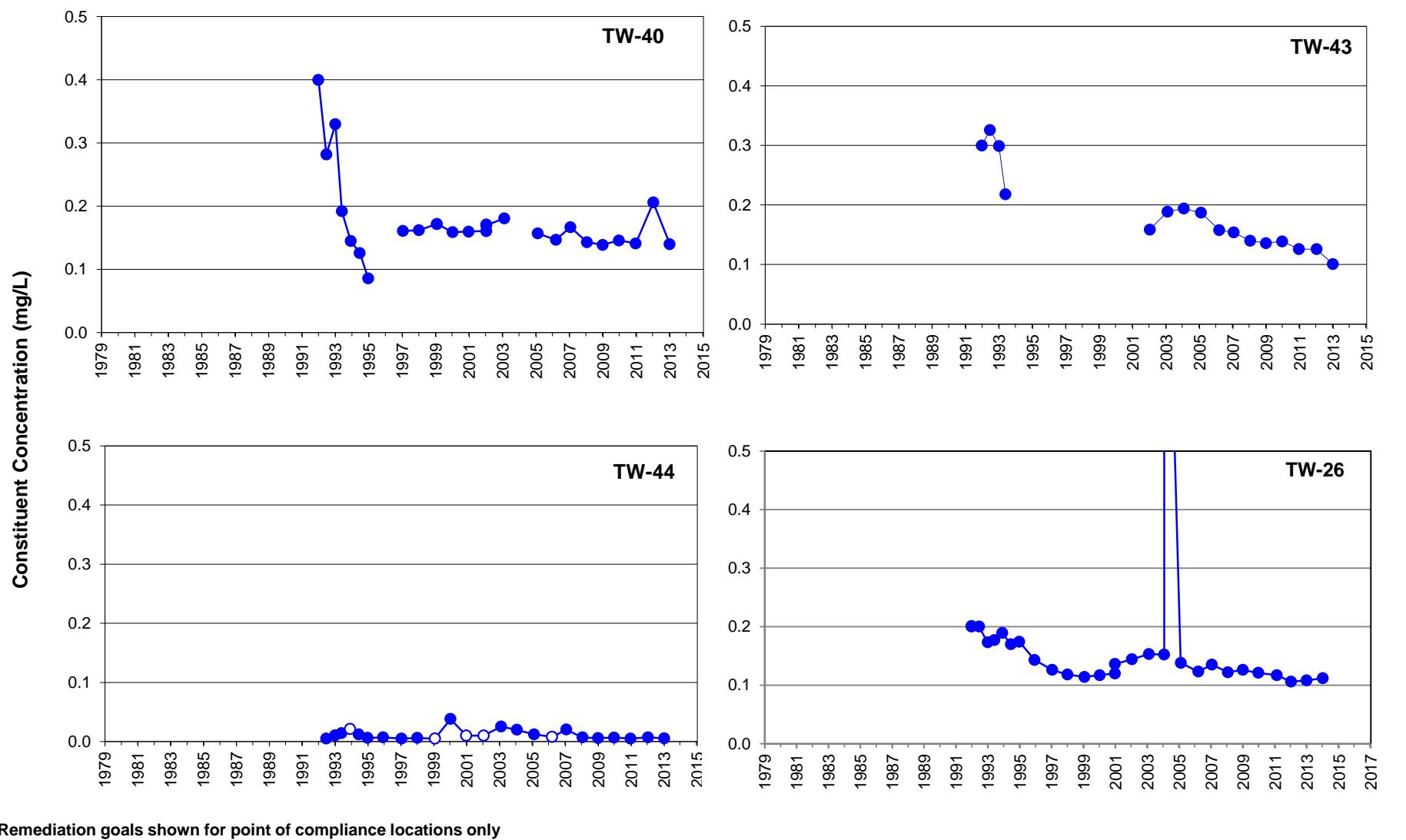
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects

FIGURE G-12
**MOLYBDENUM IN UNDERFLOW SOLIDS
PILES AREA WELLS**

Monsanto Annual Groundwater Sampling Report

913-1101-004



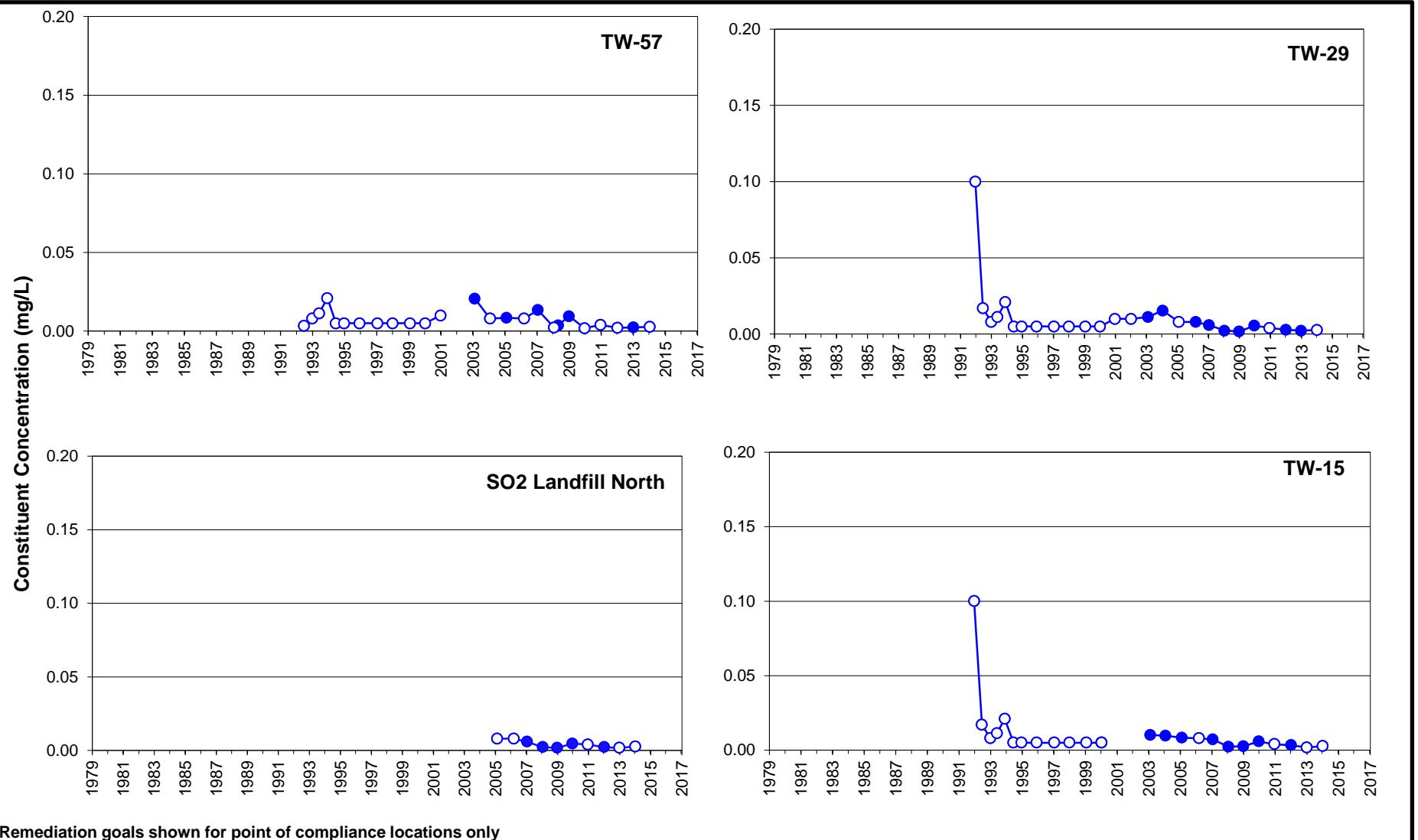
LEGEND

- Constituent Concentration (mg/L)
- Non-Detects

FIGURE G-13
**MOLYBDENUM IN HYDROCLARIFIER AND
PLANT AREA WELLS**

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

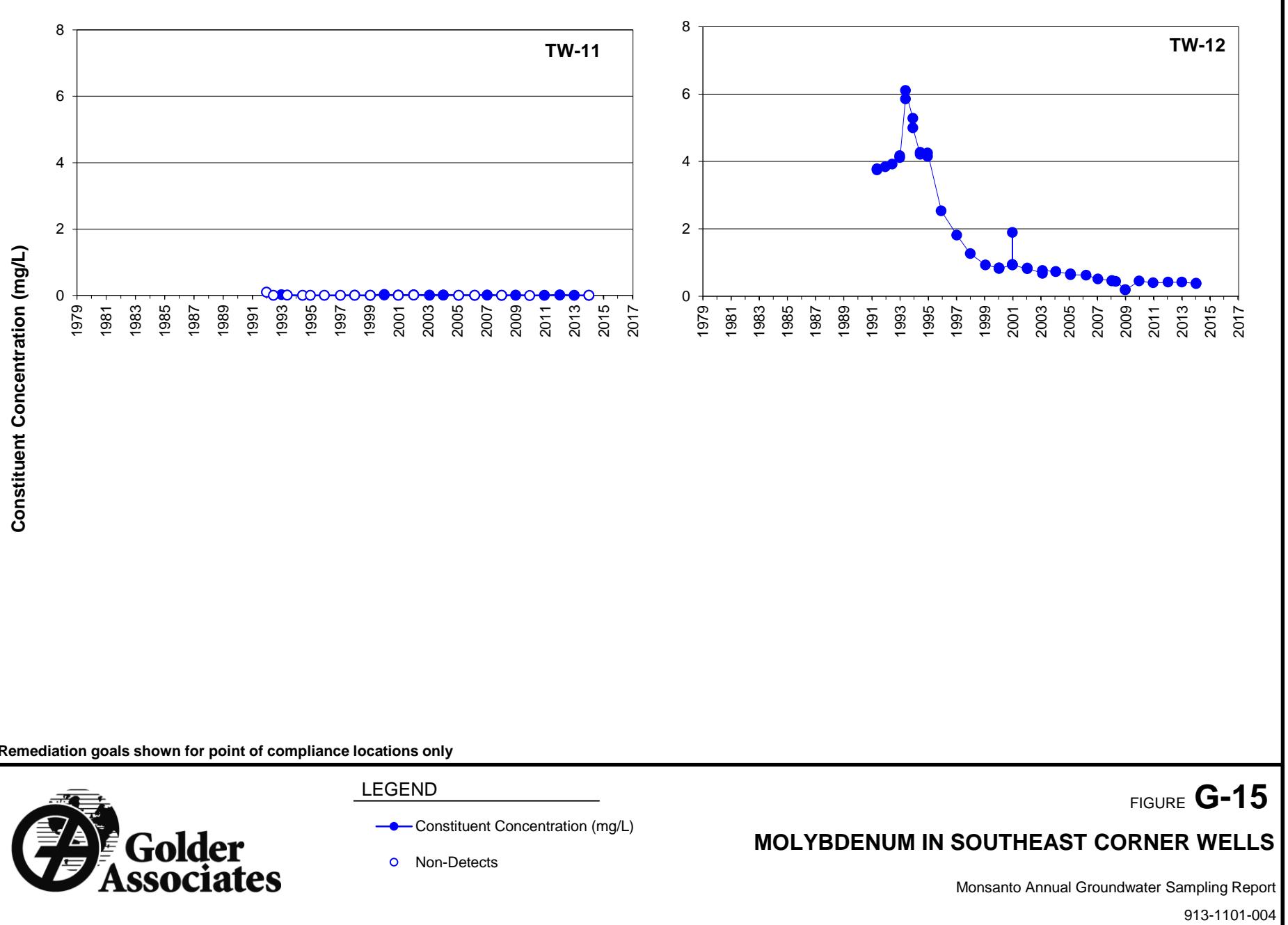
- Constituent Concentration (mg/L)
- Non-Detects

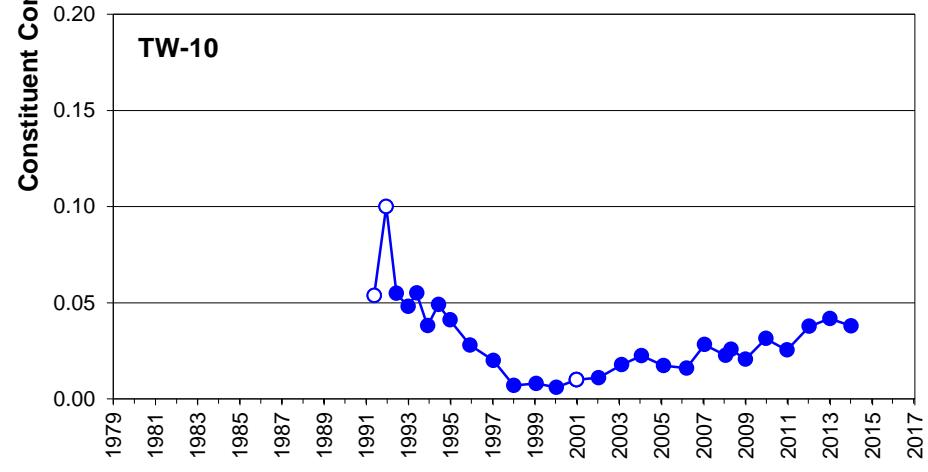
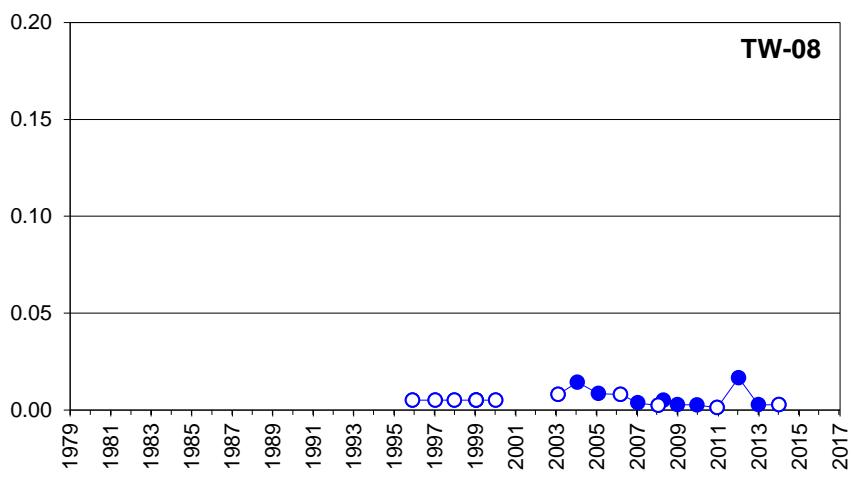
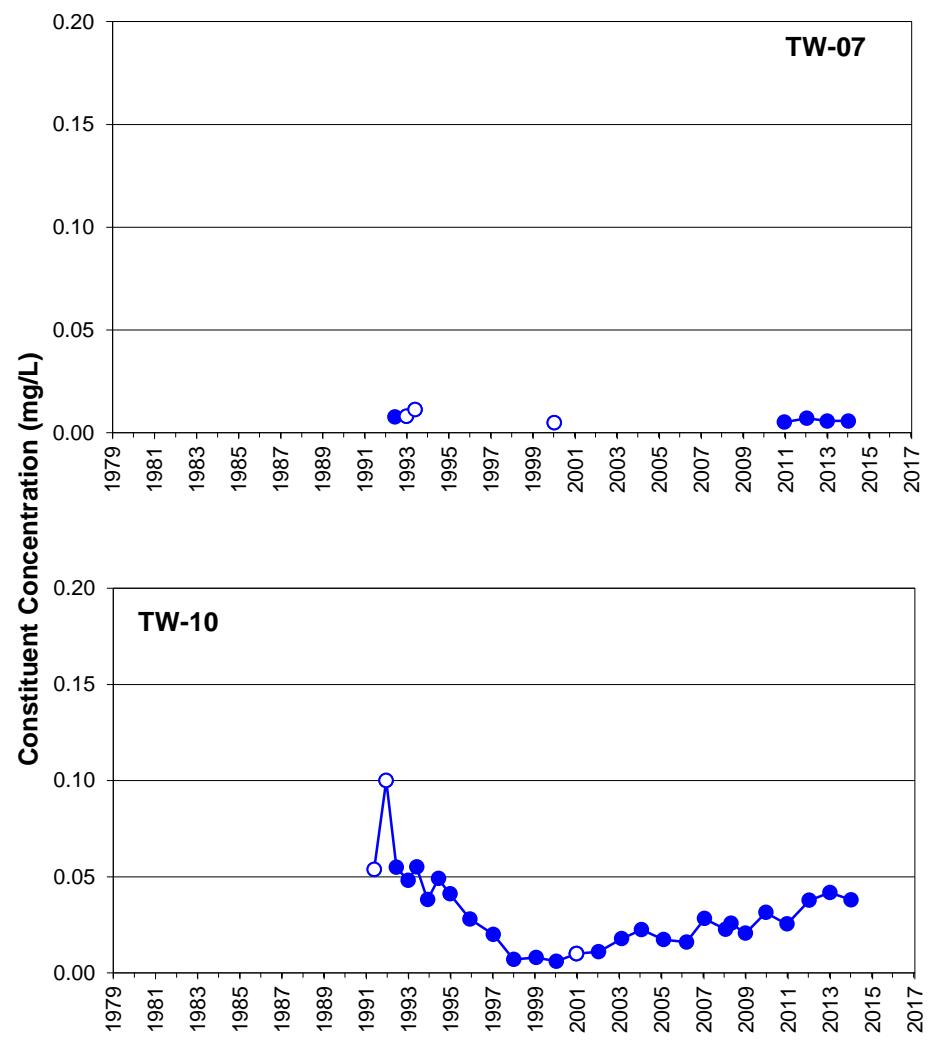
FIGURE G-14

MOLYBDENUM IN BACKGROUND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



LEGEND

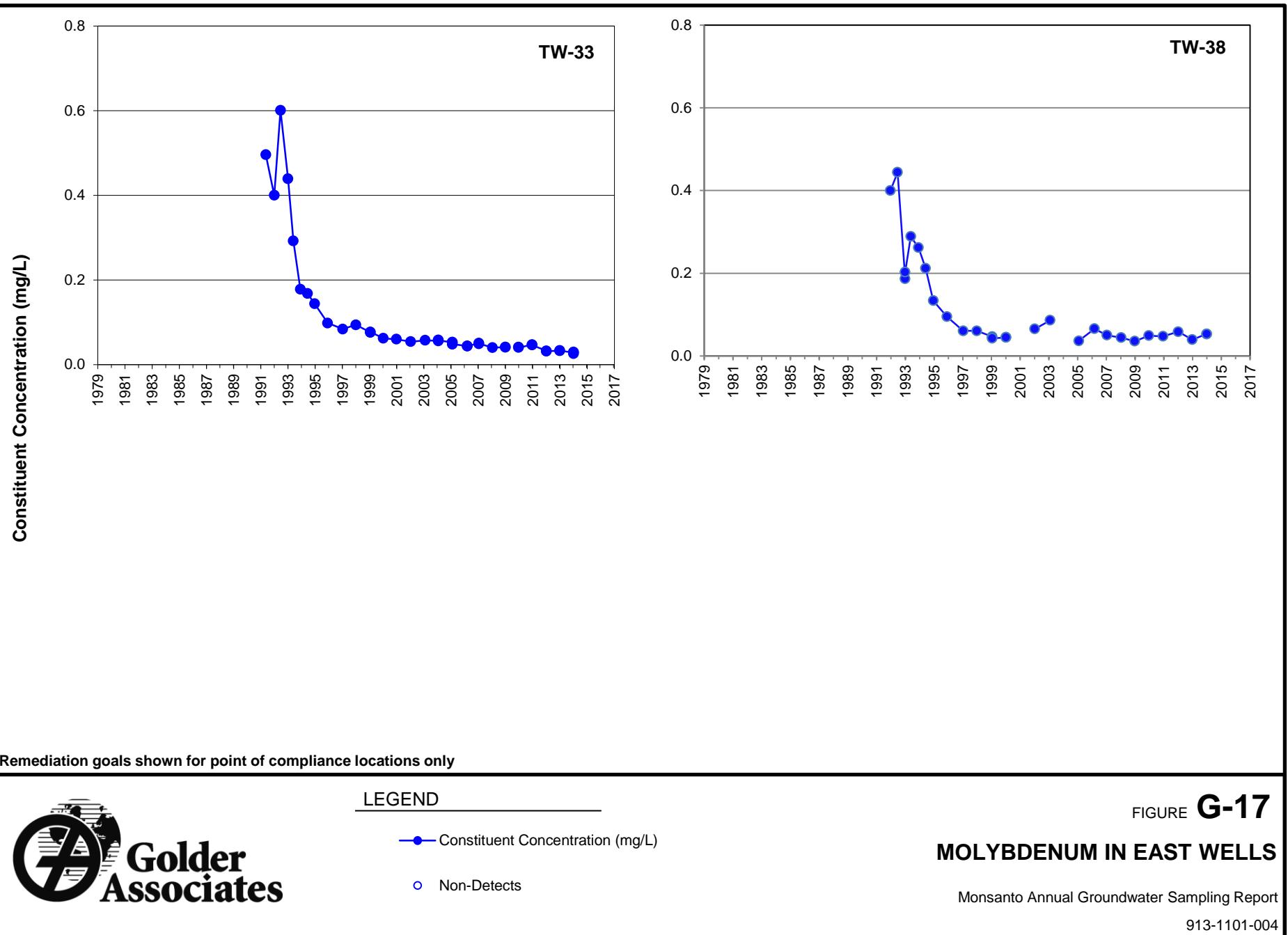
- Constituent Concentration (mg/L)
- Non-Detects

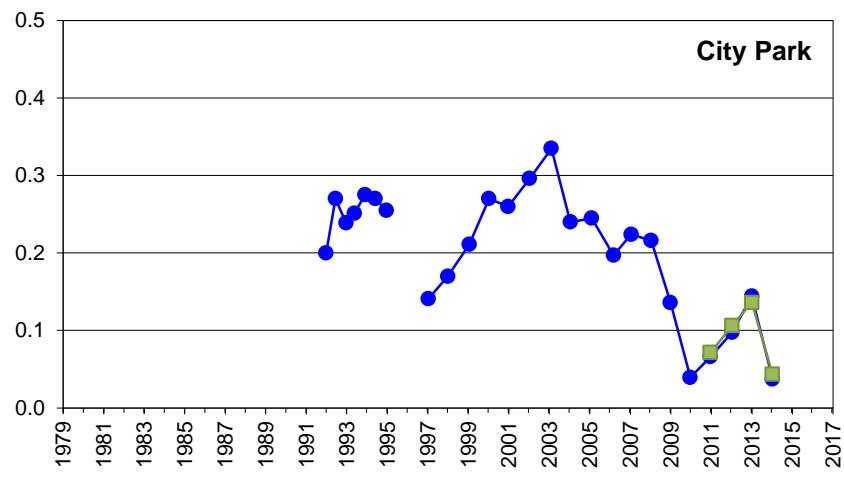
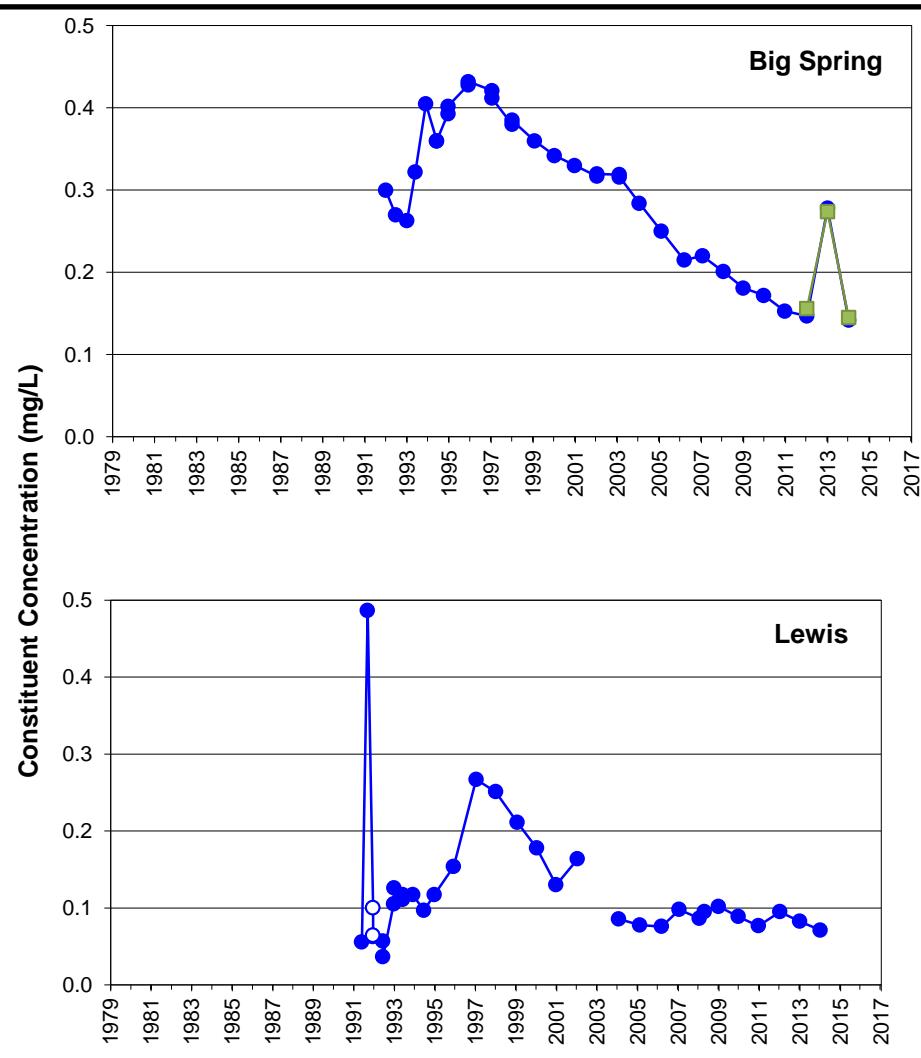
FIGURE G-16

MOLYBDENUM IN SOUTHWEST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



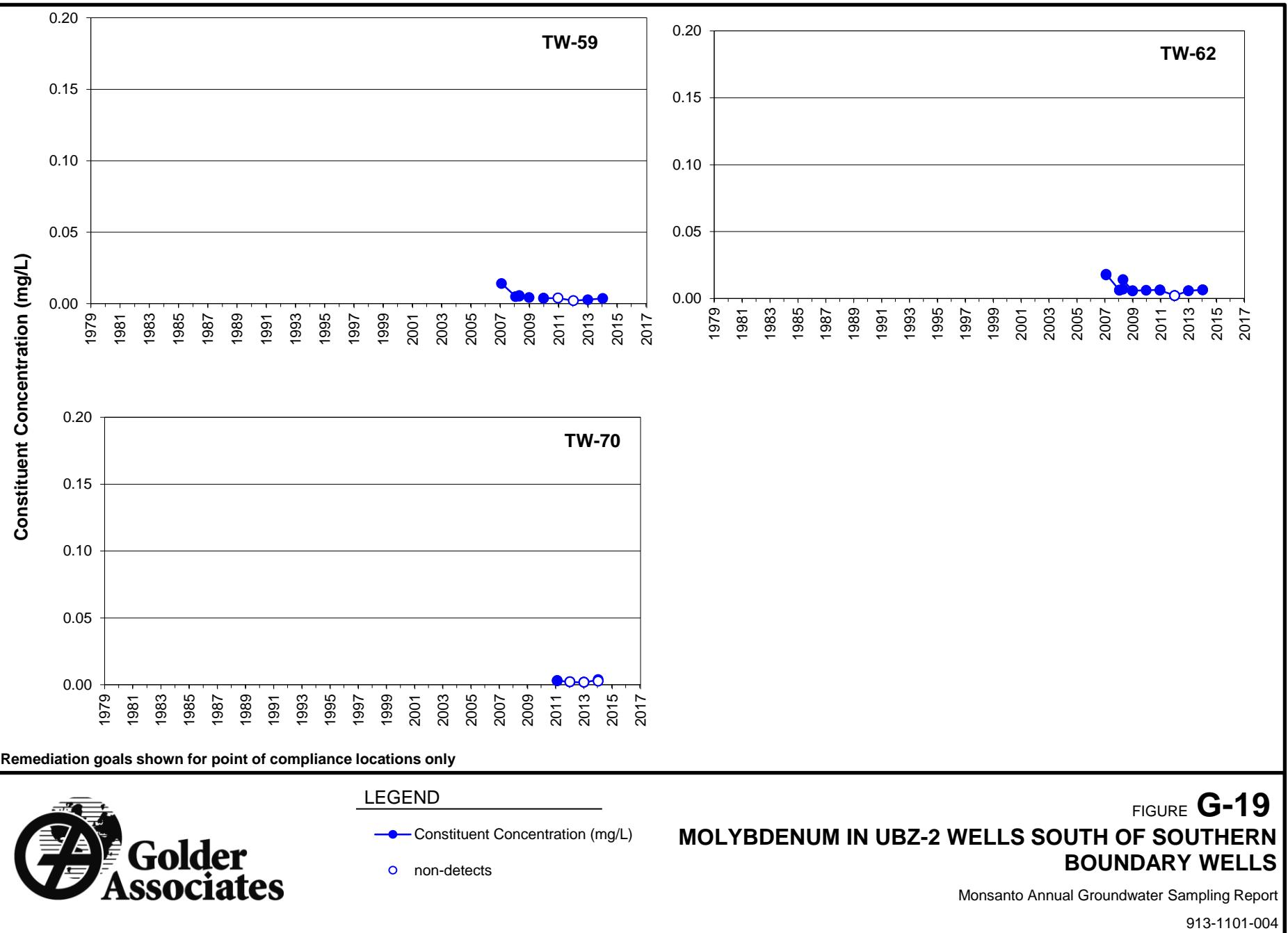
LEGEND

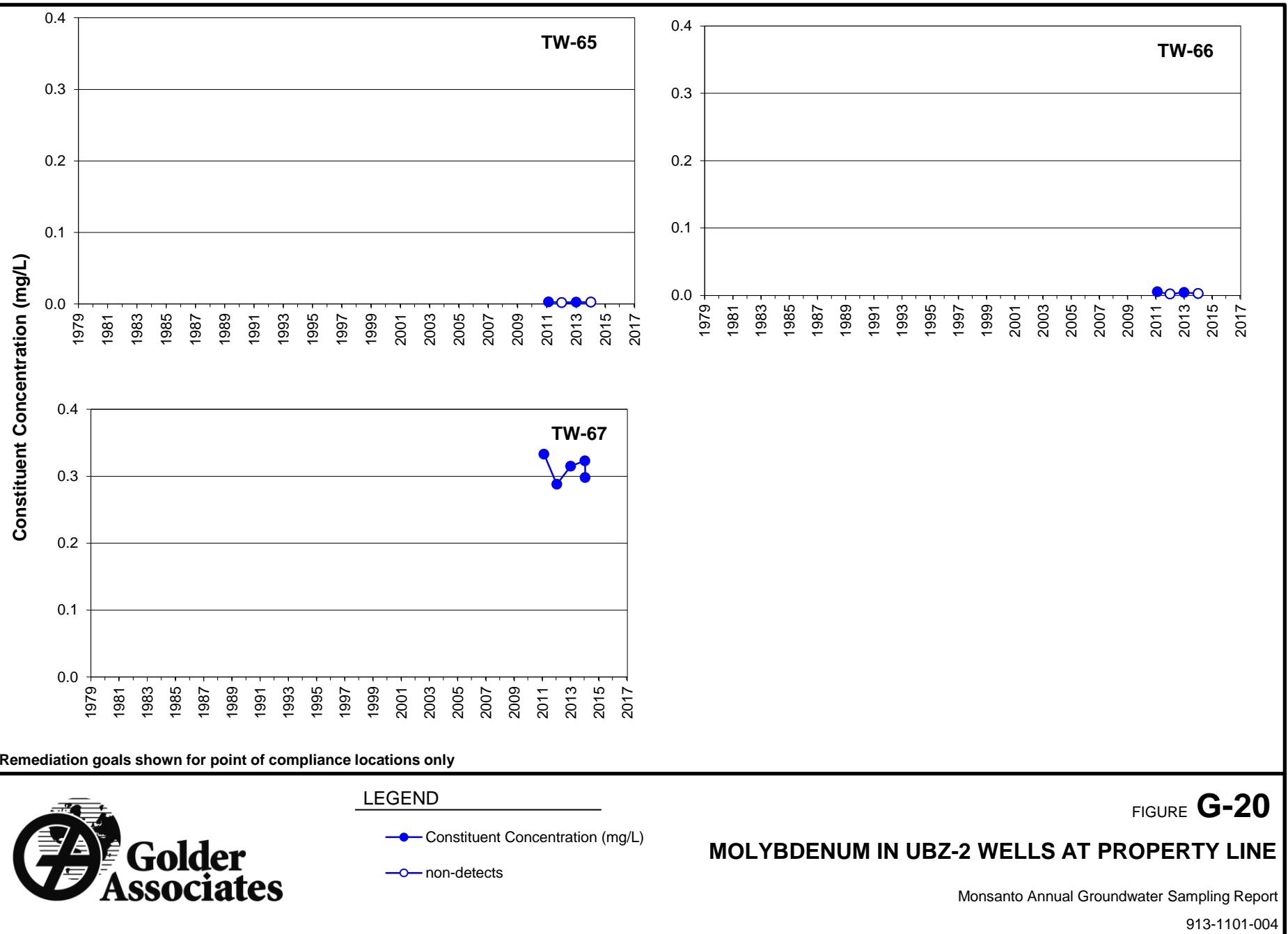
- Constituent Concentration (mg/L)
- Non-Detects
- Dissolved Constituent Concentration (mg/L)
- Dissolved Non-Detect (mg/L)

FIGURE G-18
MOLYBDENUM IN OFFSITE WELLS AND SPRINGS

Monsanto Annual Groundwater Sampling Report

913-1101-004





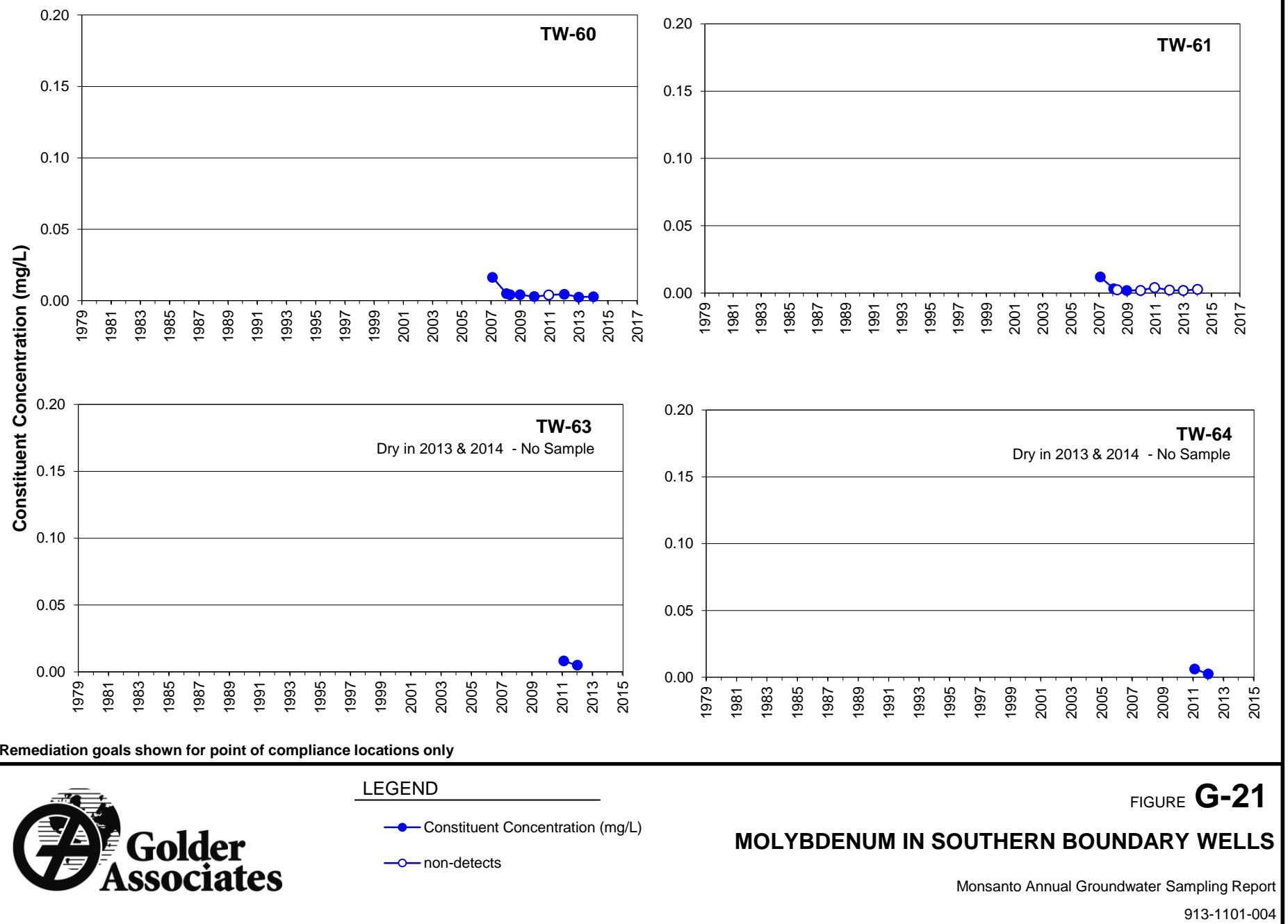
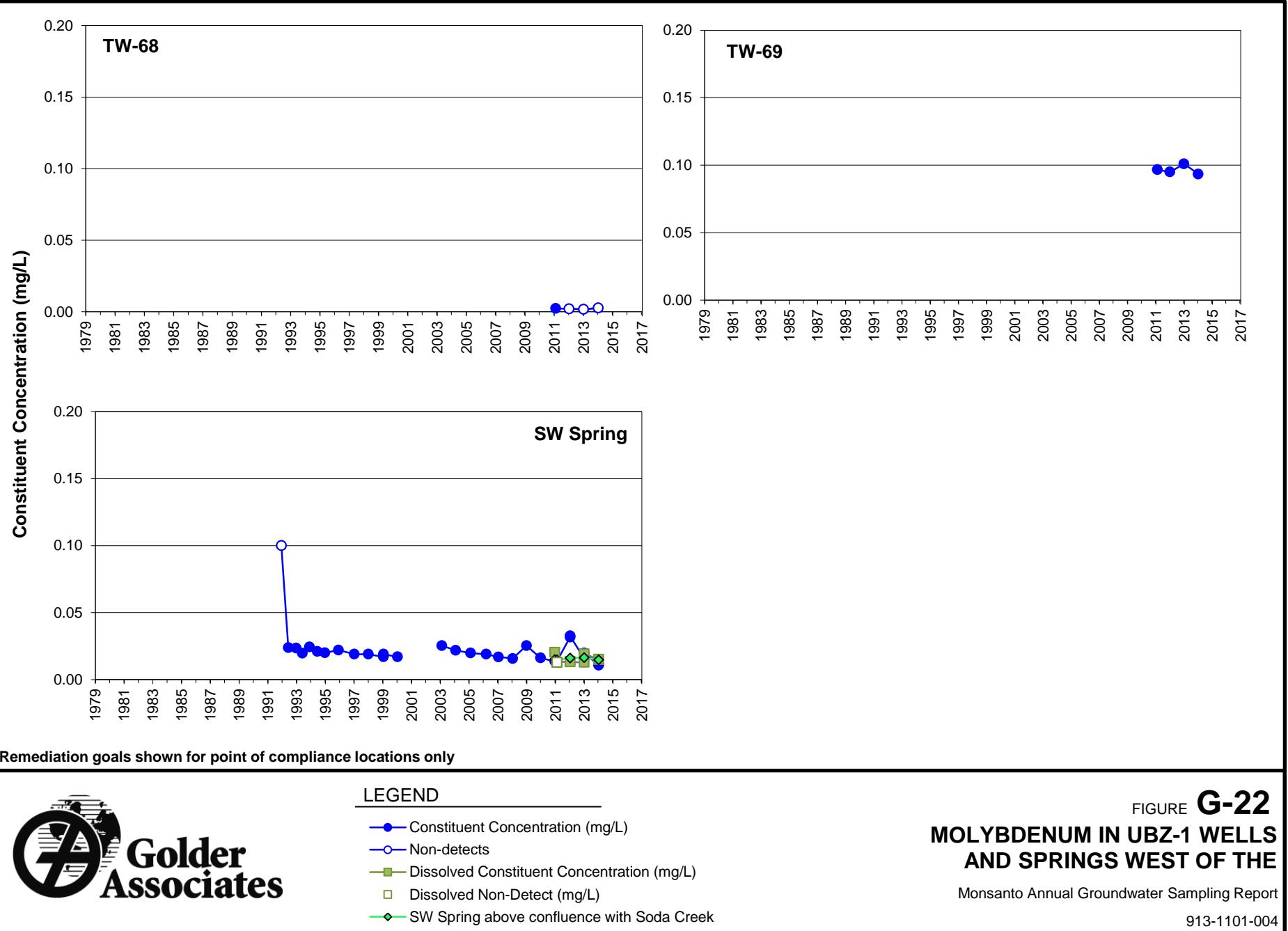


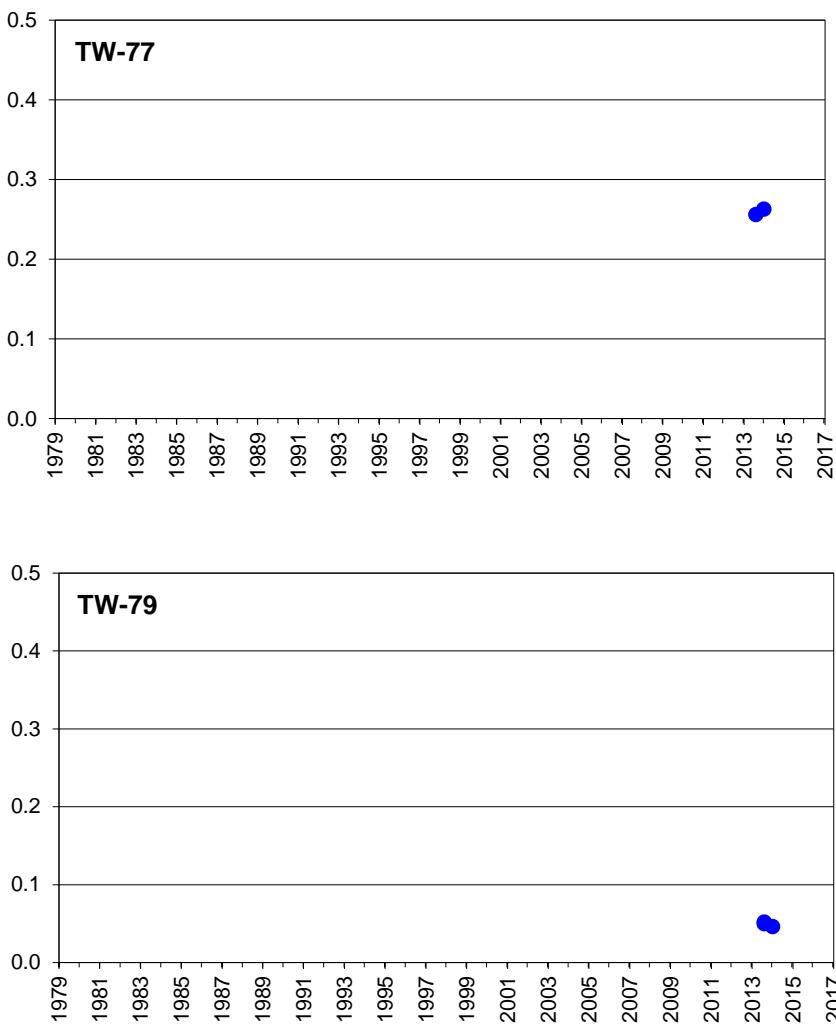
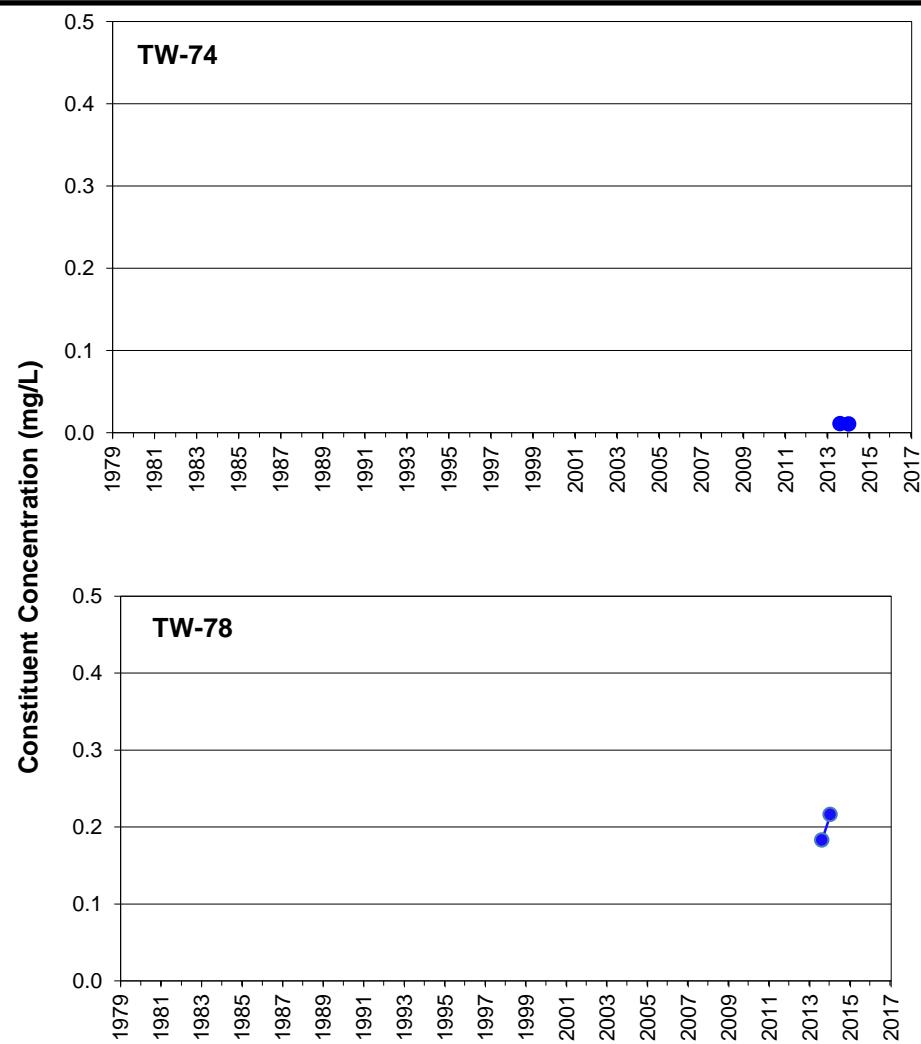
FIGURE G-21

MOLYBDENUM IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only

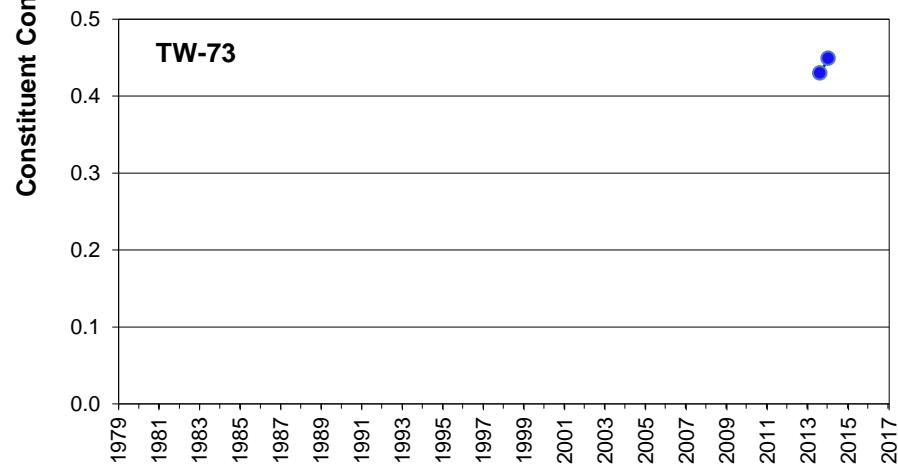
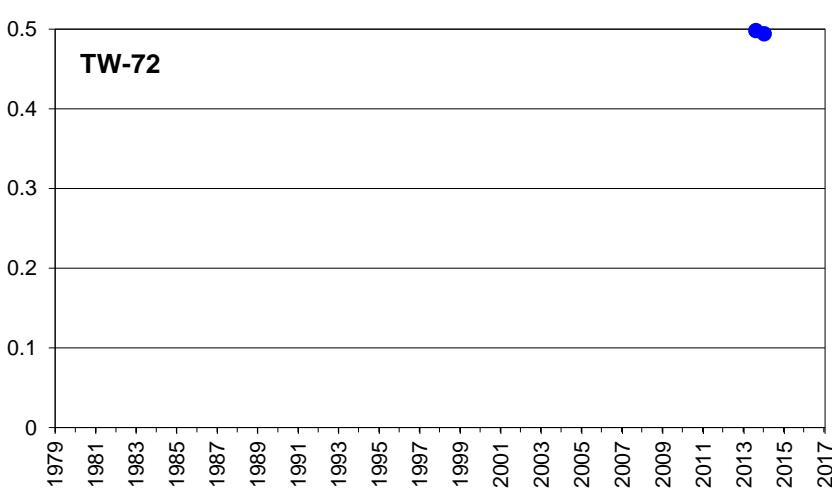
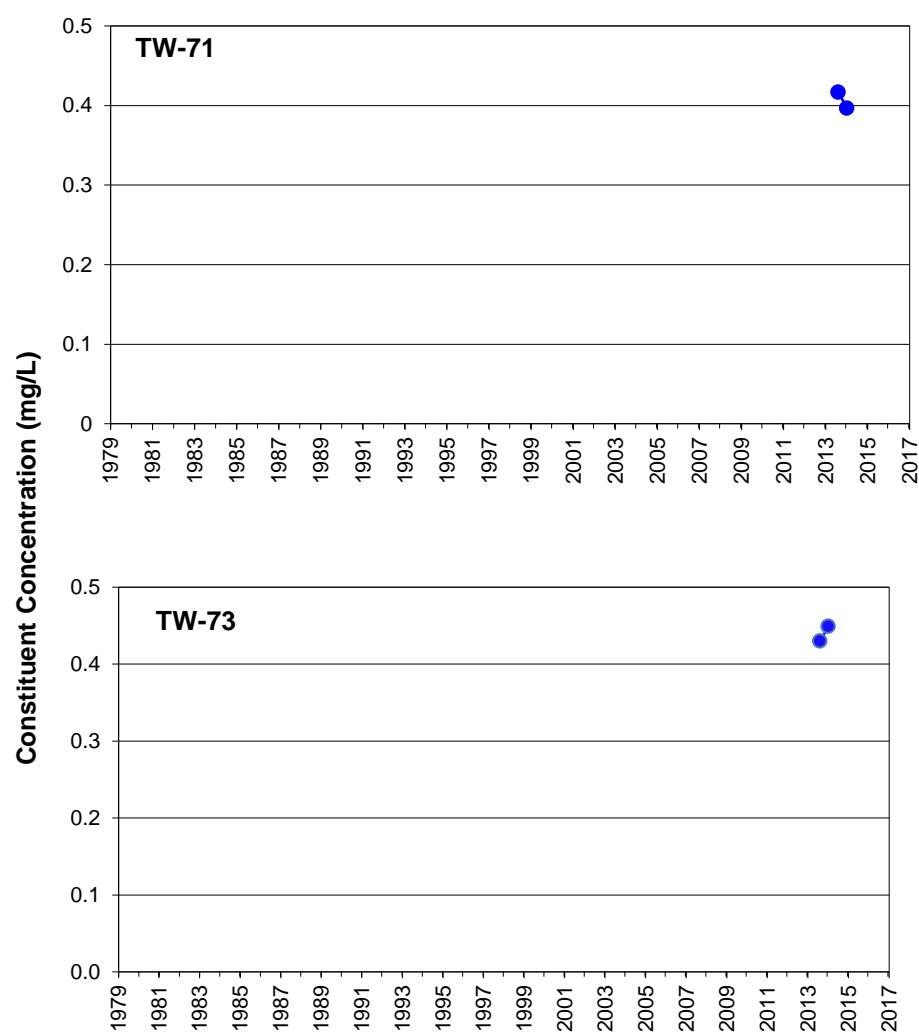


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

FIGURE G-23
MOLYBDENUM IN UBZ-4 TAILINGS POND
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only

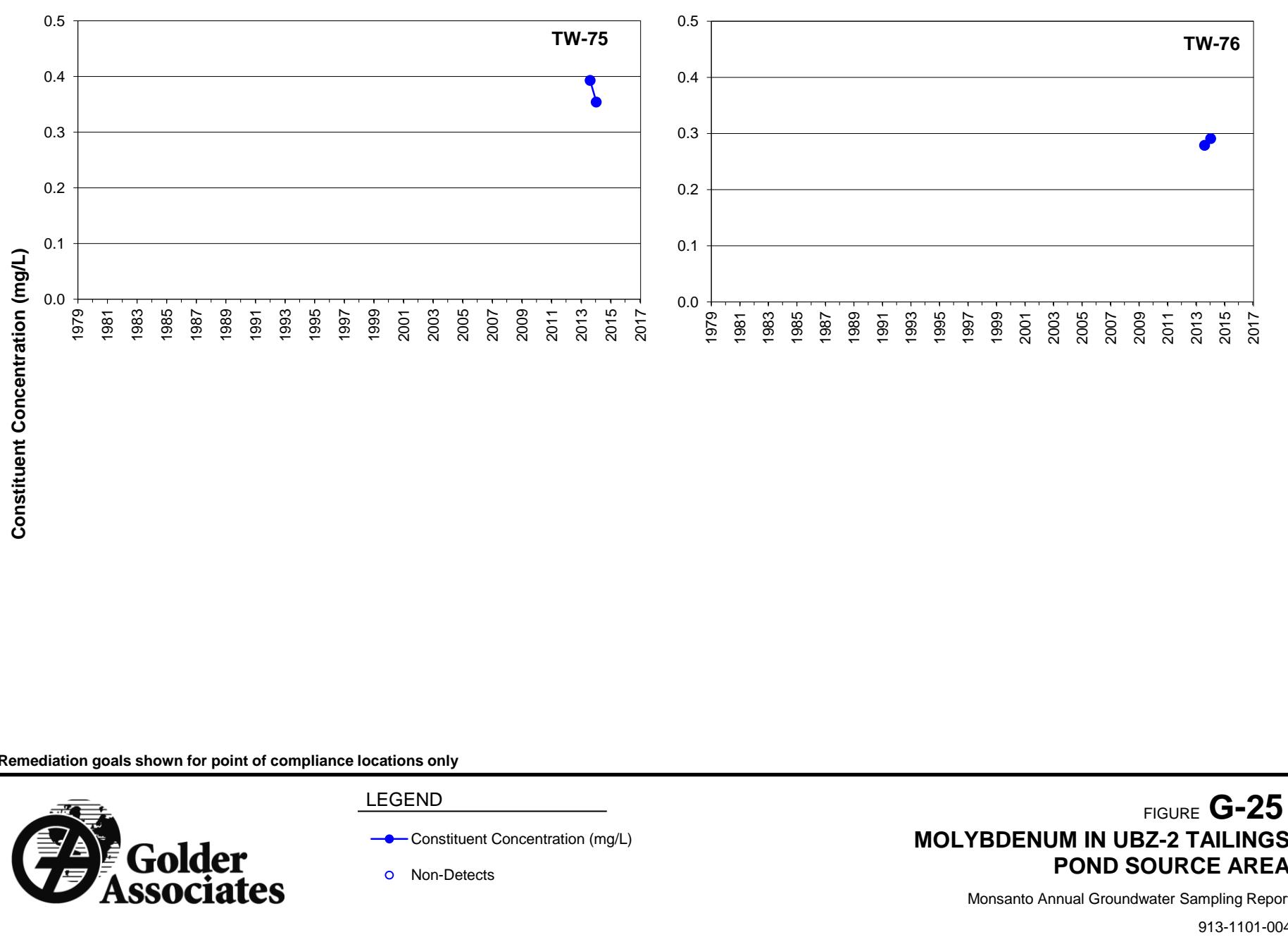


- LEGEND**
- Constituent Concentration (mg/L)
 - Non-Detects

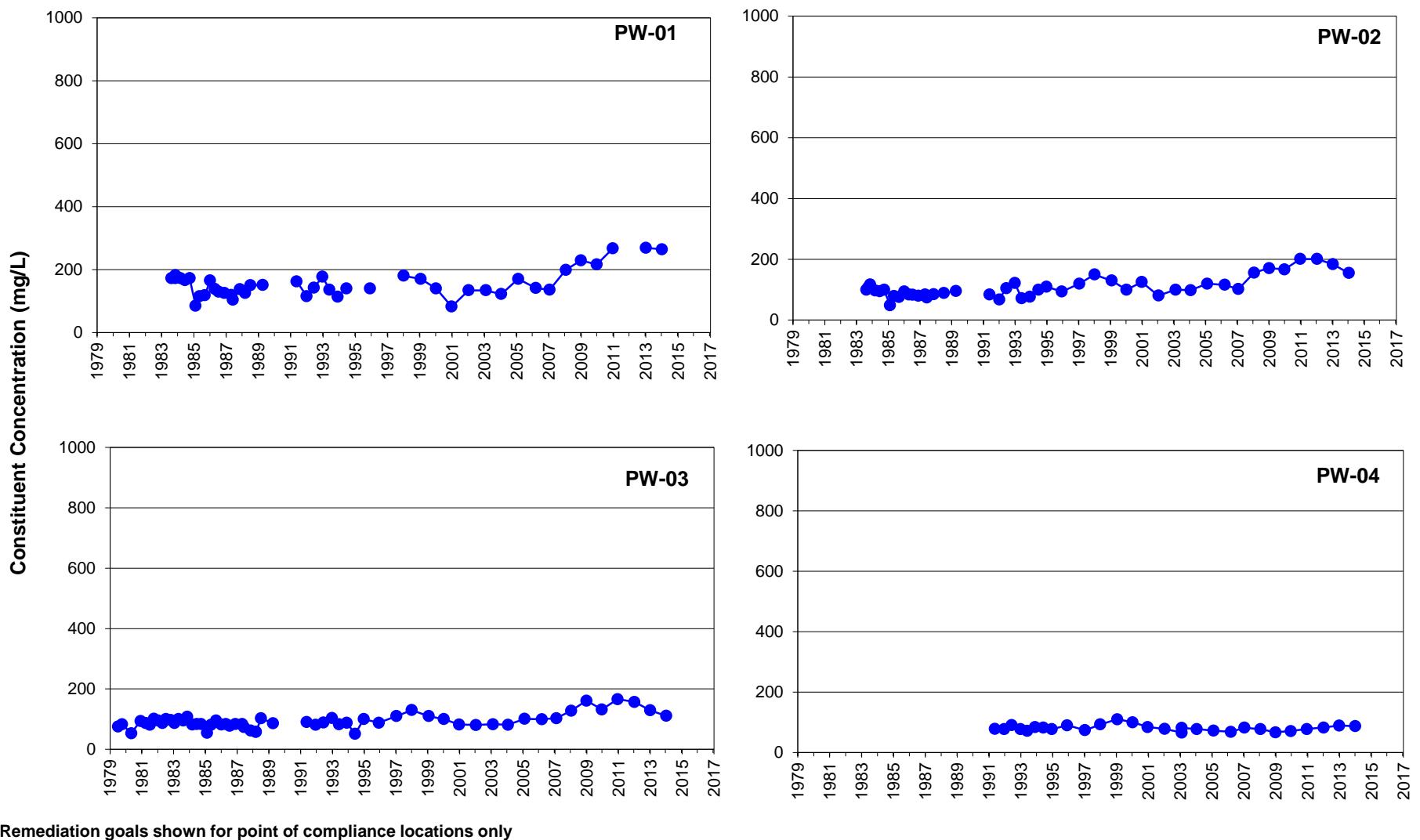
FIGURE G-24
MOLYBDENUM IN UBZ-2 OLD UFS PONDS
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



APPENDIX H
TIME-HISTORY GRAPHS FOR SULFATE



LEGEND

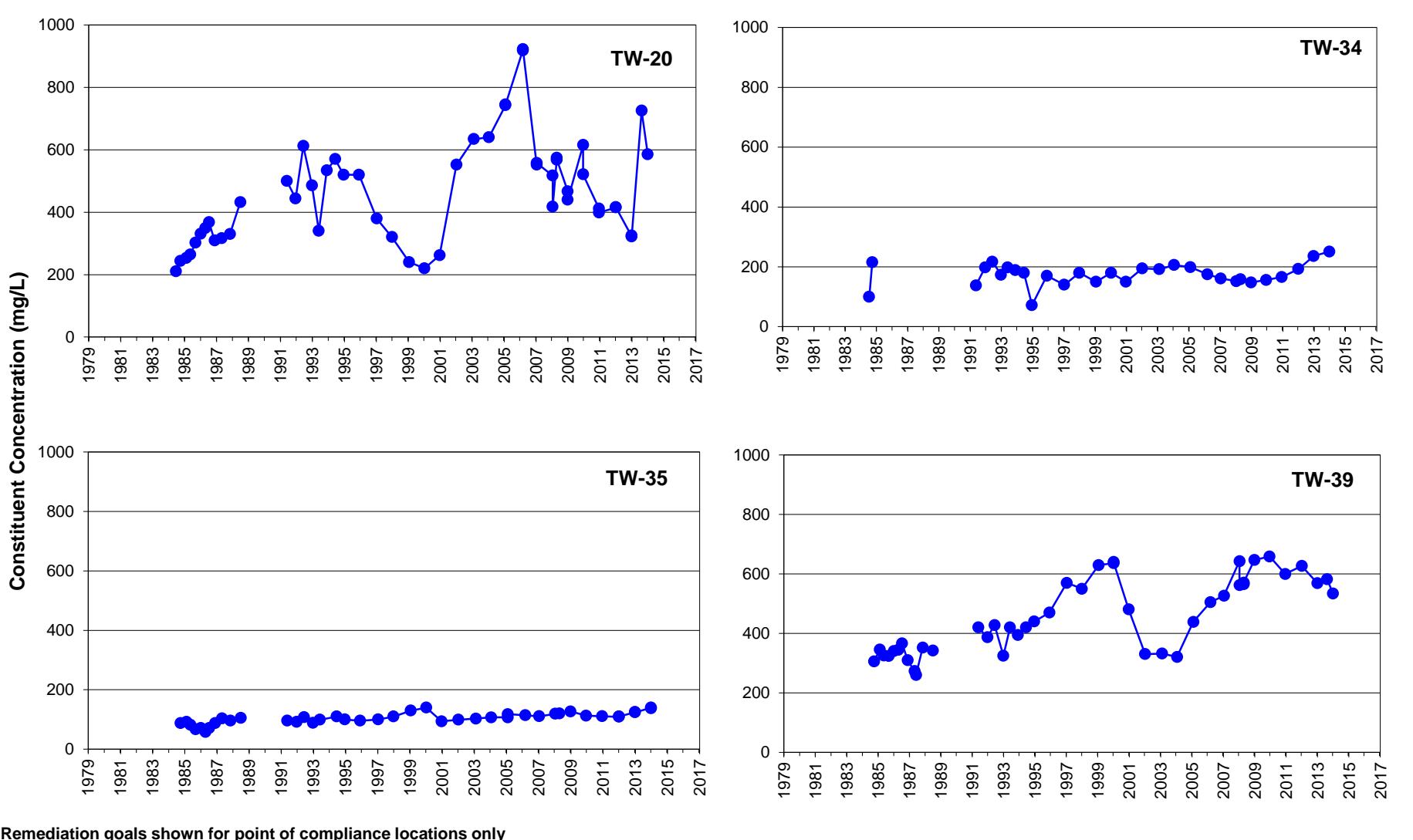
—●— Constituent Concentration (mg/L)

FIGURE H-1

SULFATE IN PRODUCTION WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

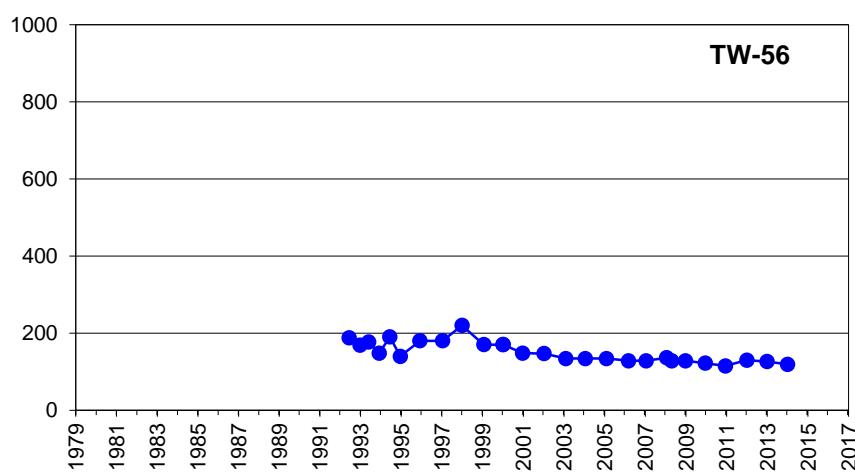
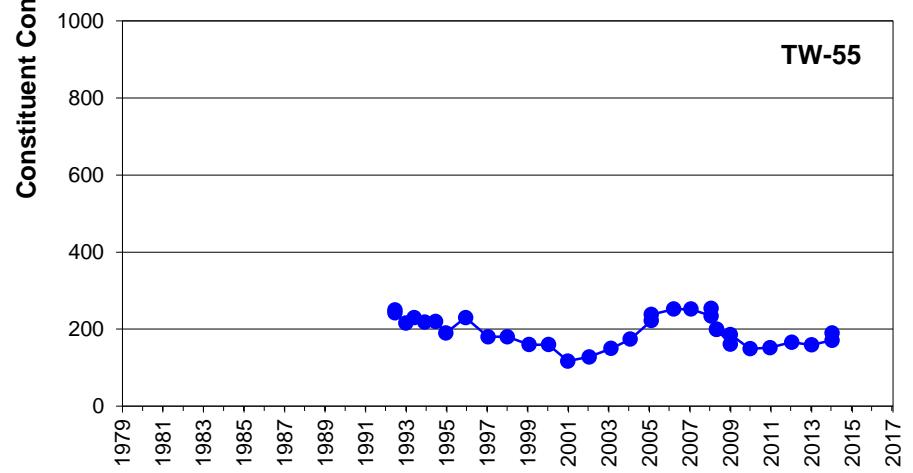
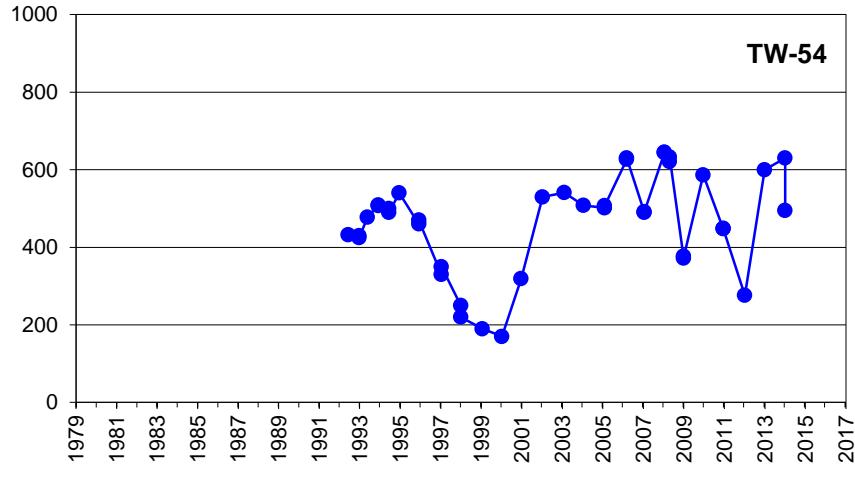
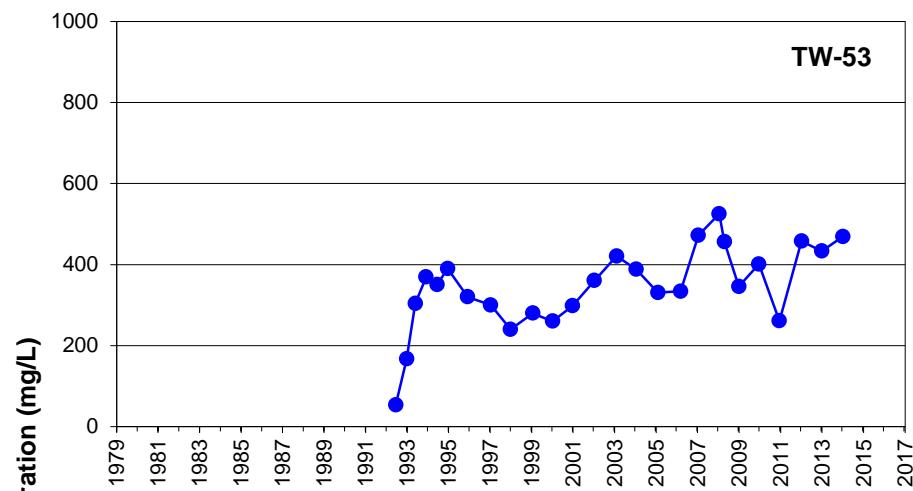
Constituent Concentration (mg/L)

FIGURE H-2

SULFATE IN SOUTH FENCELINE WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

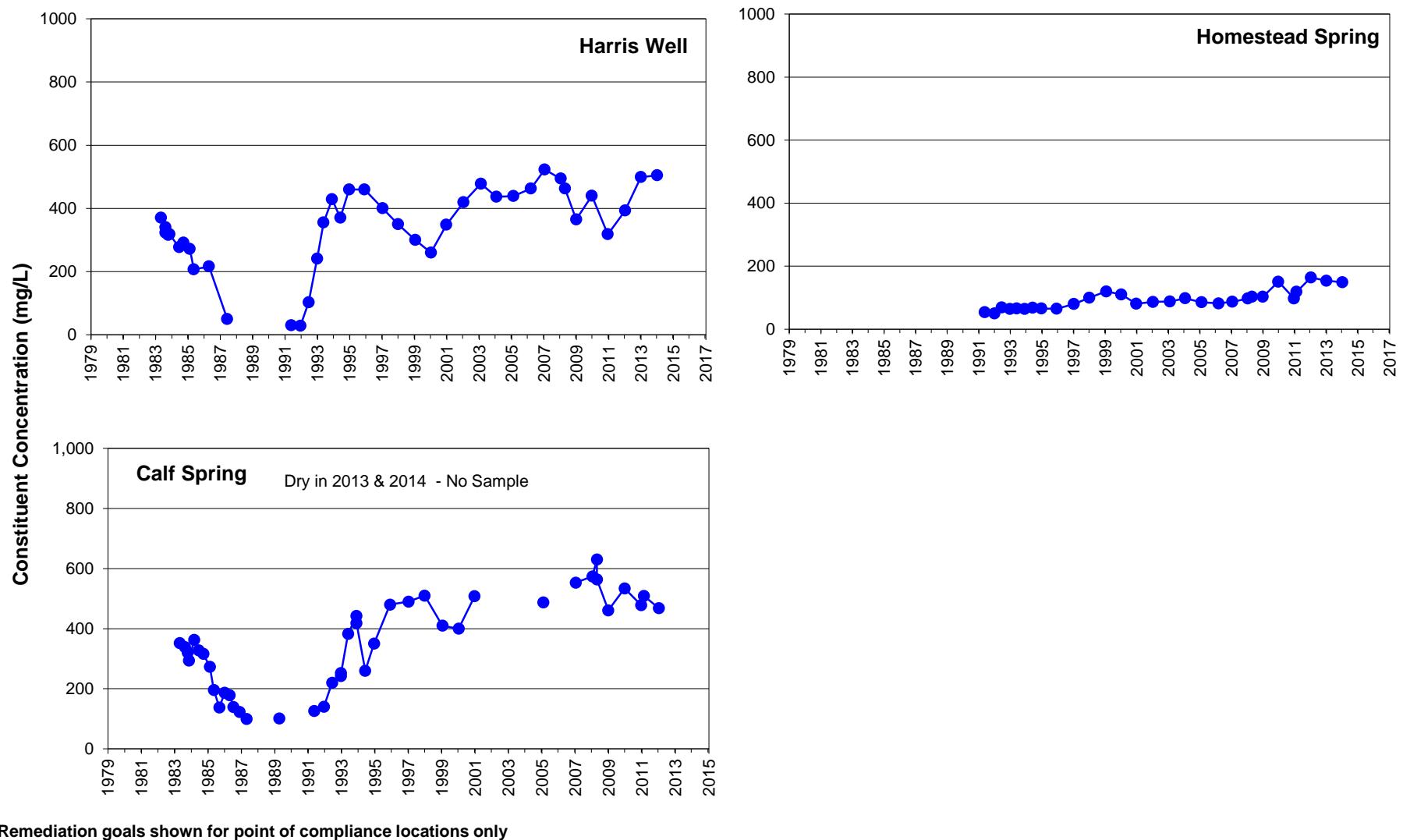
Constituent Concentration (mg/L)

FIGURE H-3

SULFATE IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



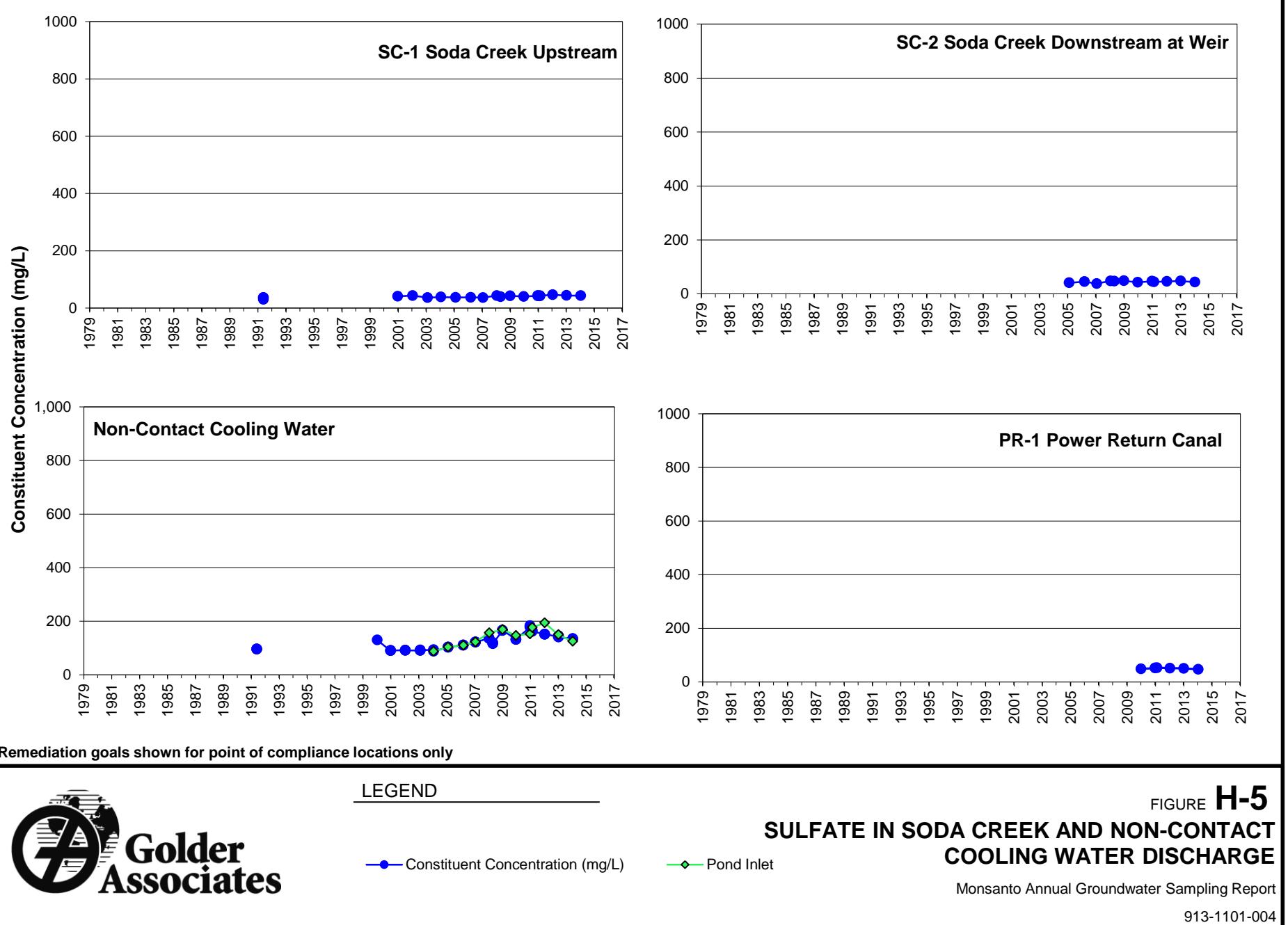
LEGEND

Constituent Concentration (mg/L)

FIGURE H-4
**SULFATE IN HARRIS WELL AND SPRINGS
SOUTH OF PLANT**

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

Constituent Concentration (mg/L)

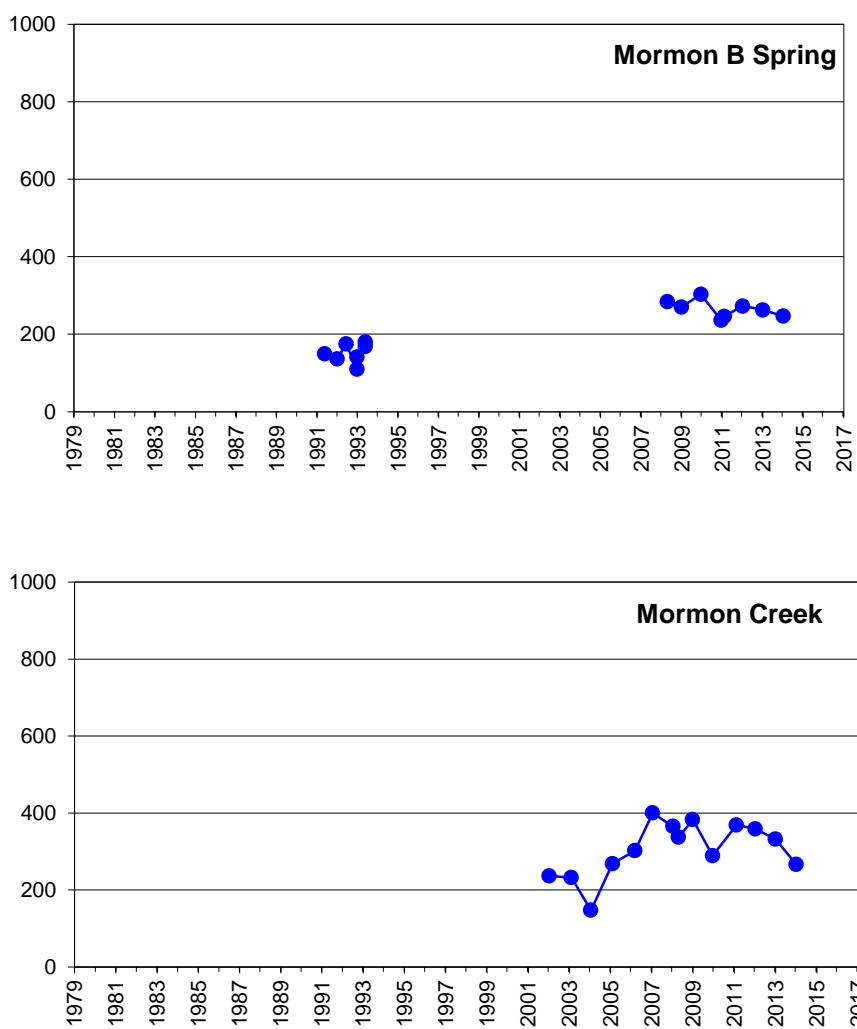
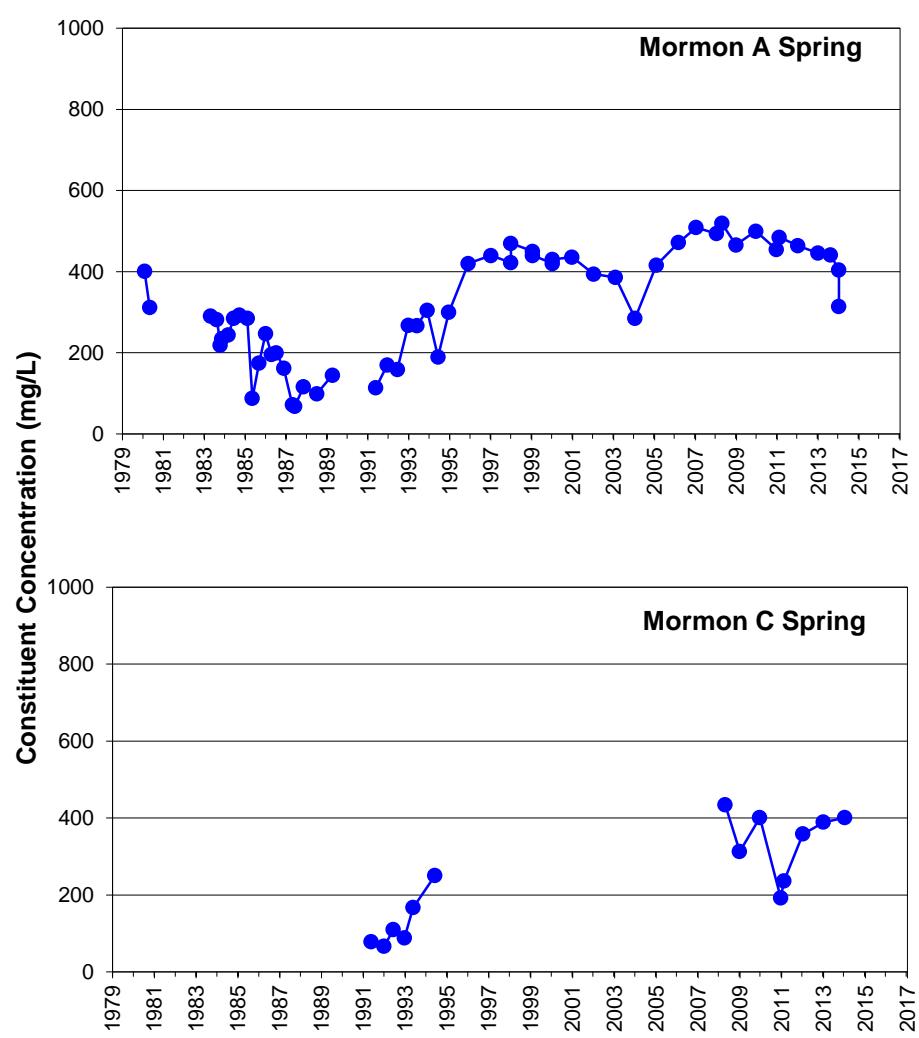
Pond Inlet

FIGURE H-5

SULFATE IN SODA CREEK AND NON-CONTACT COOLING WATER DISCHARGE

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



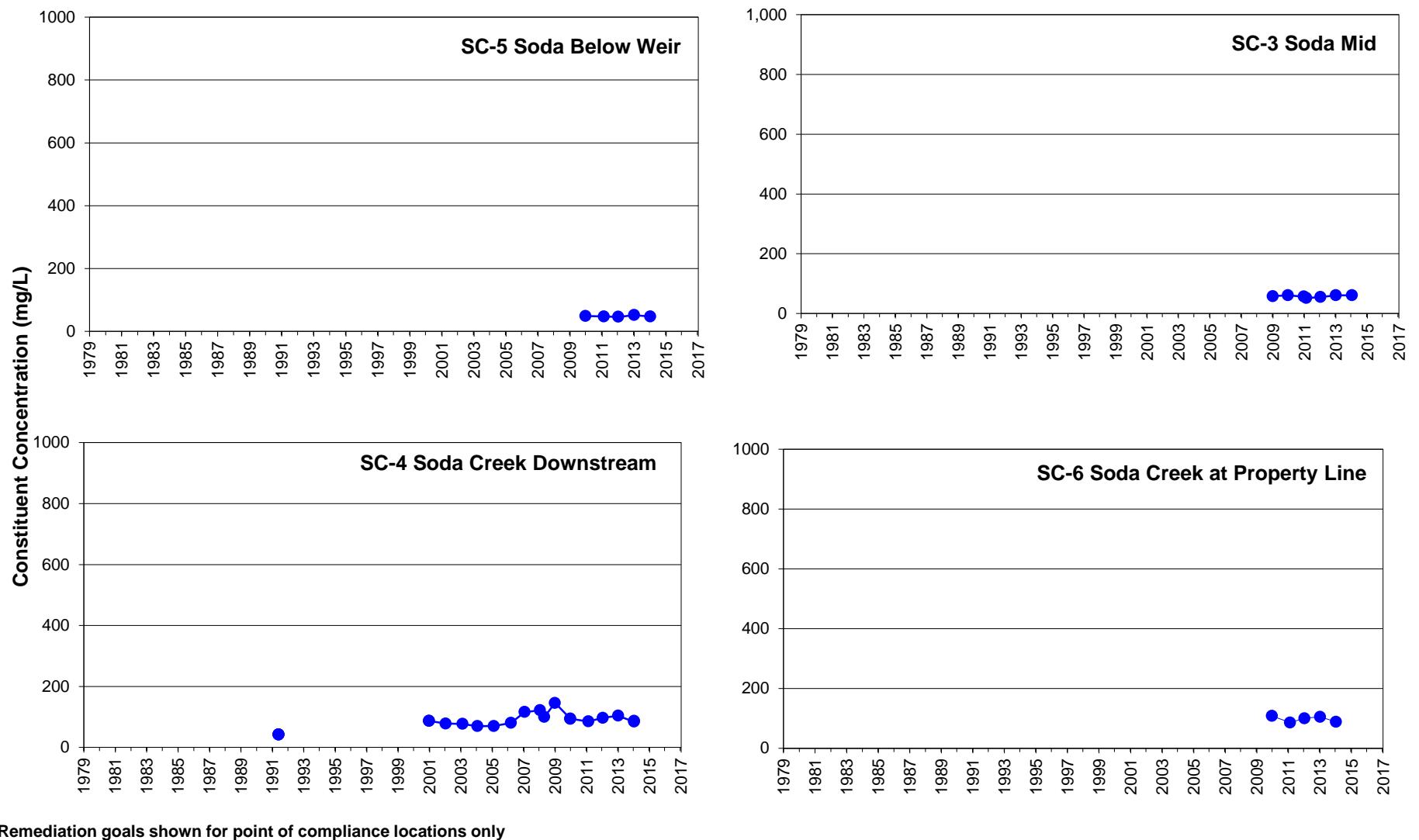
LEGEND

Constituent Concentration (mg/L)

FIGURE H-6
**SULFATE IN MORMON A, B, AND C SPRINGS
AND MORMON CREEK**

Monsanto Annual Groundwater Sampling Report

913-1101-004



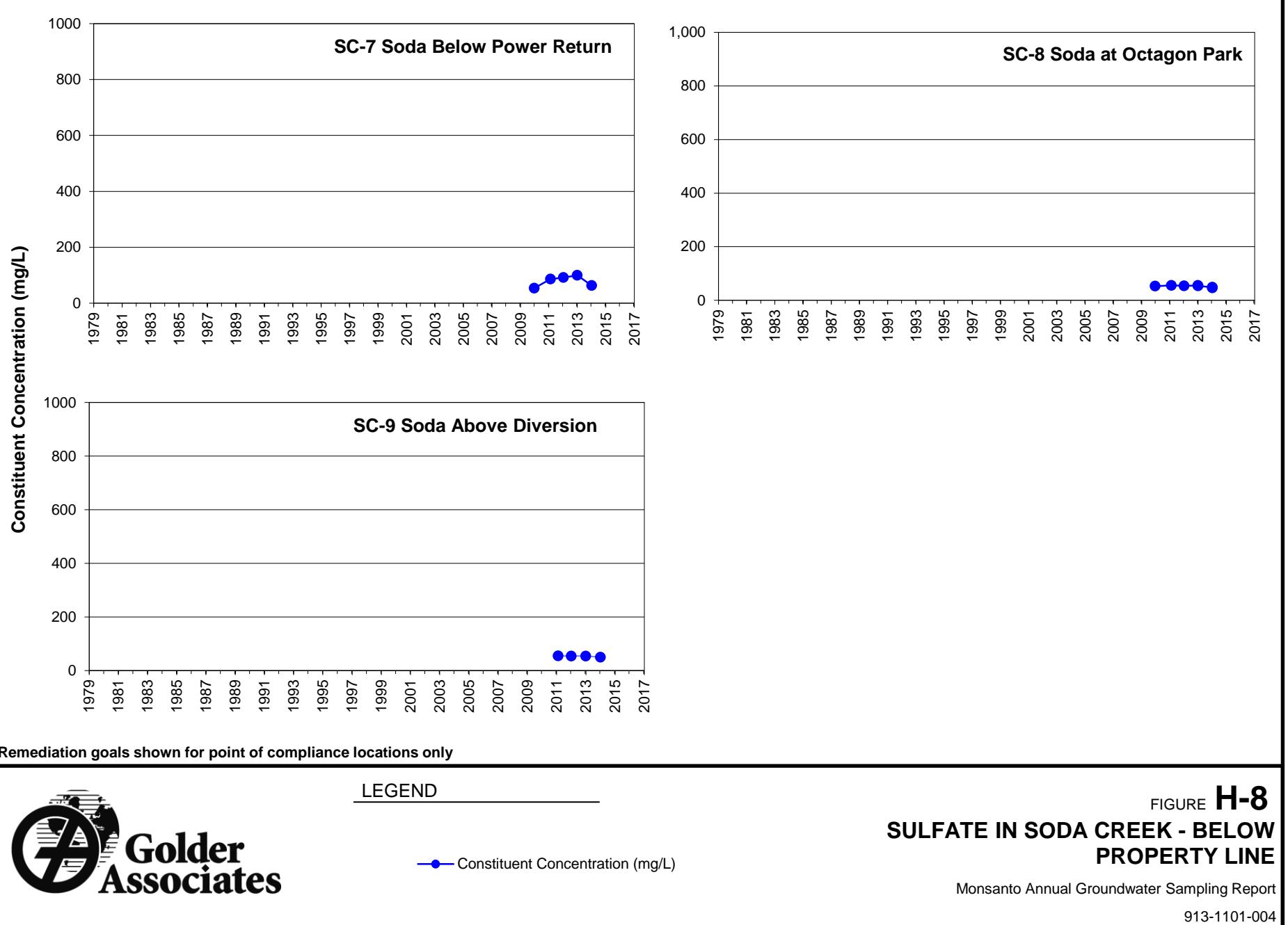
LEGEND

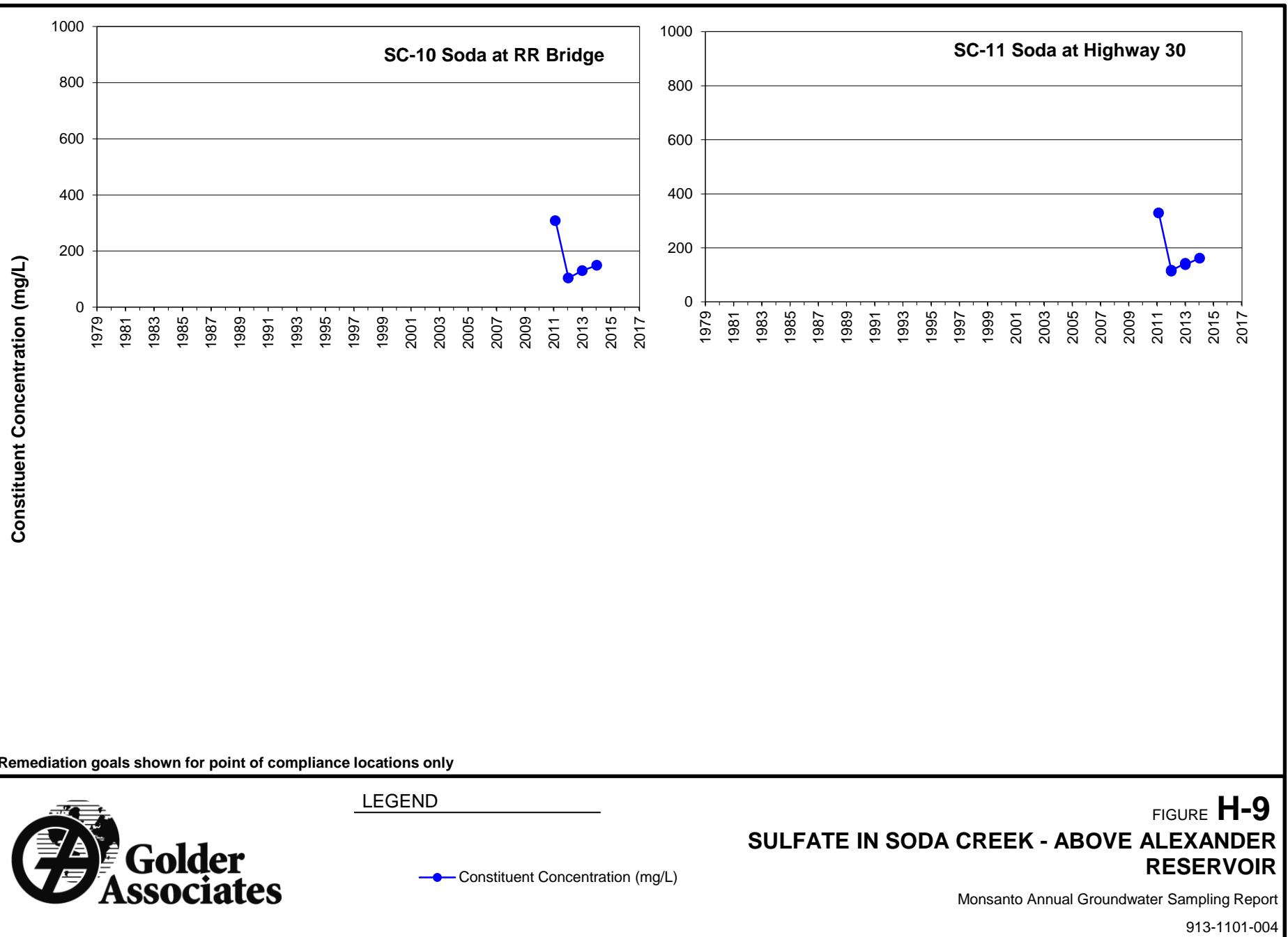
Constituent Concentration (mg/L)

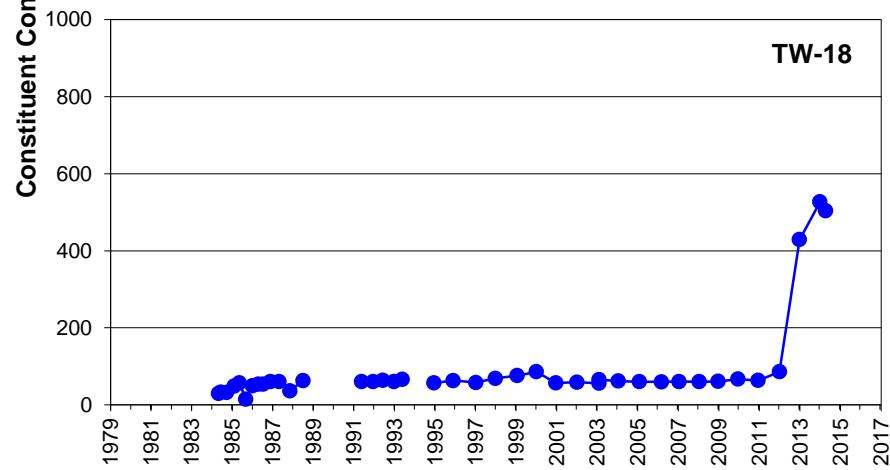
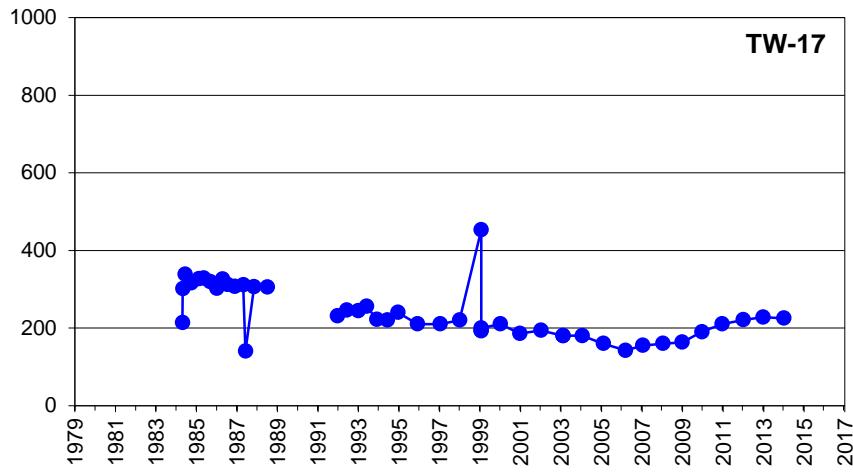
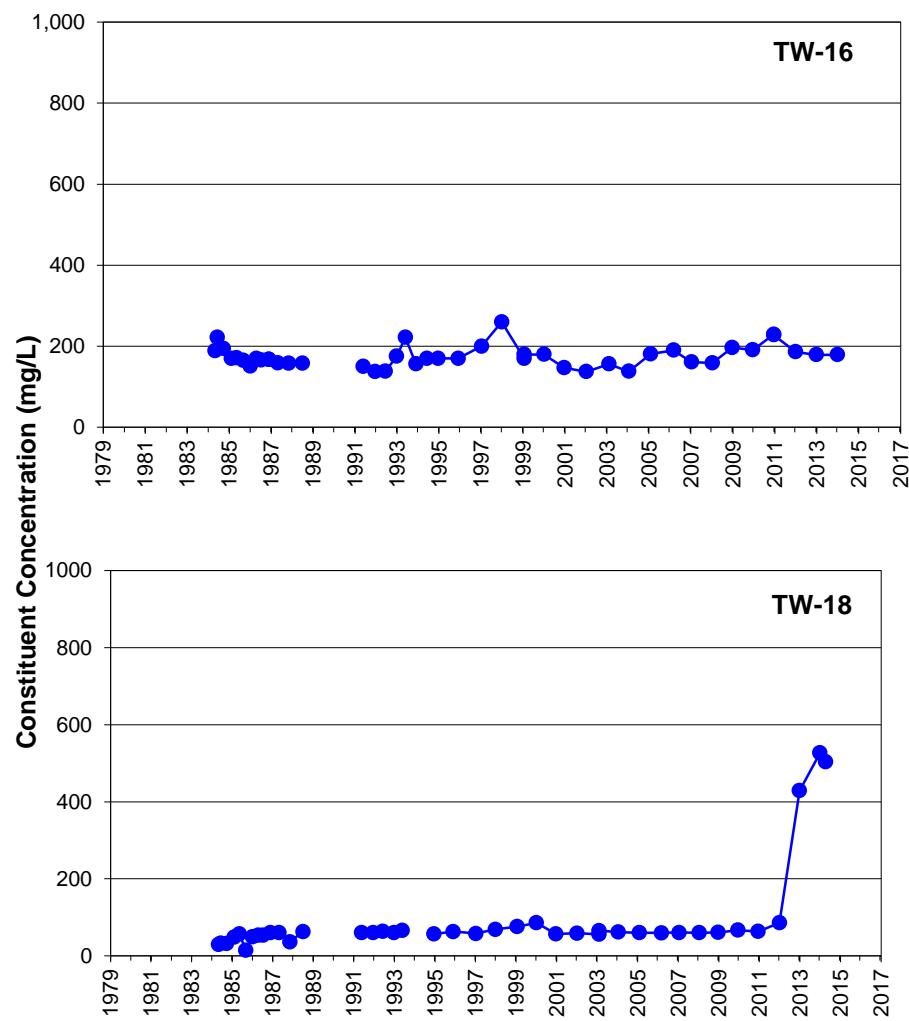
FIGURE H-7
SULFATE IN SODA CREEK - WEIR TO PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004







Remediation goals shown for point of compliance locations only



LEGEND

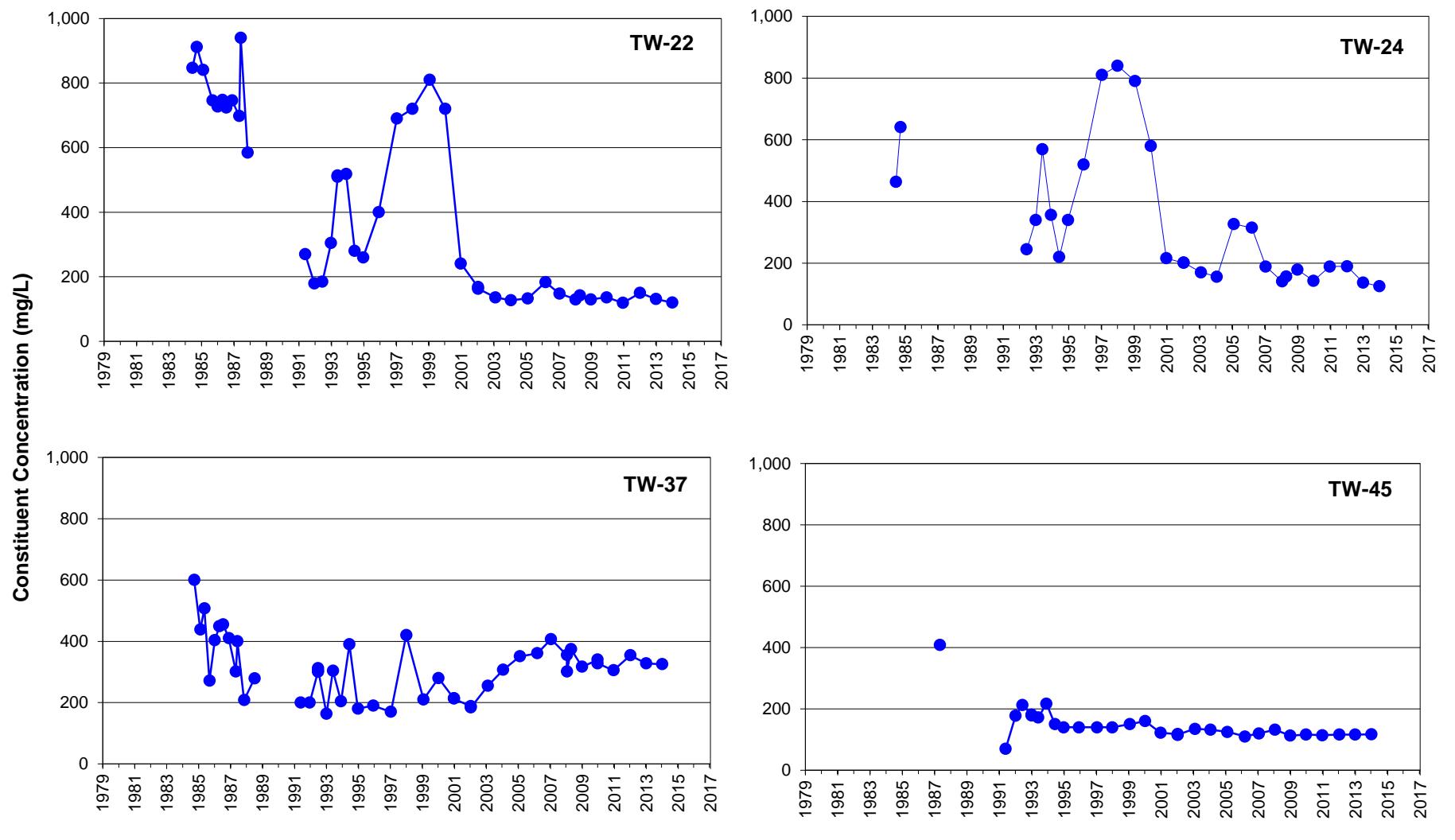
—●— Constituent Concentration (mg/L)

FIGURE H-10

SULFATE IN NW POND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



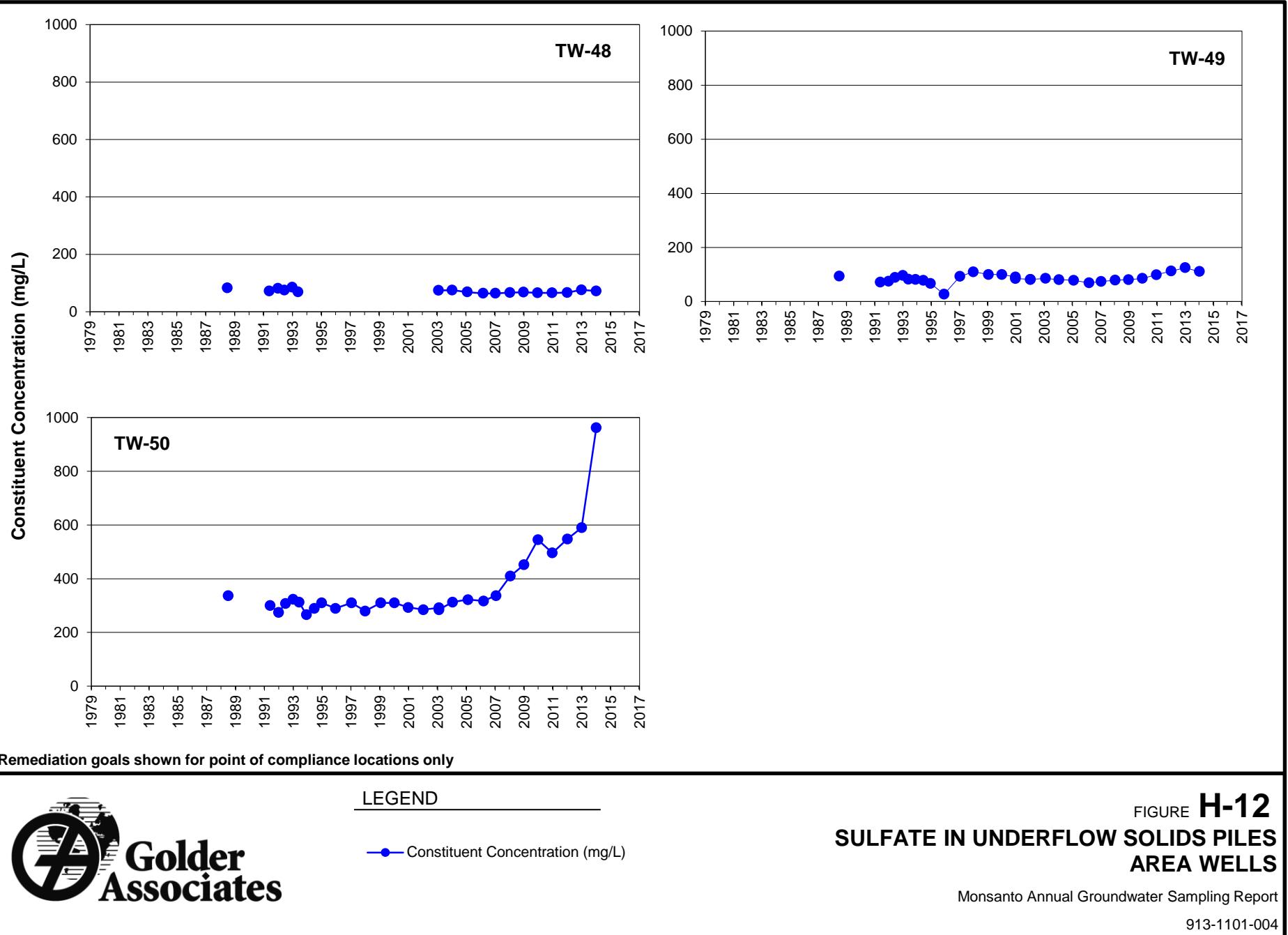
LEGEND

- Constituent Concentration (mg/L)

FIGURE H-11
**SULFATE IN OLD UNDERFLOW
SOLIDS POND AREA WELLS**

Monsanto Annual Groundwater Sampling Report

913-1101-004



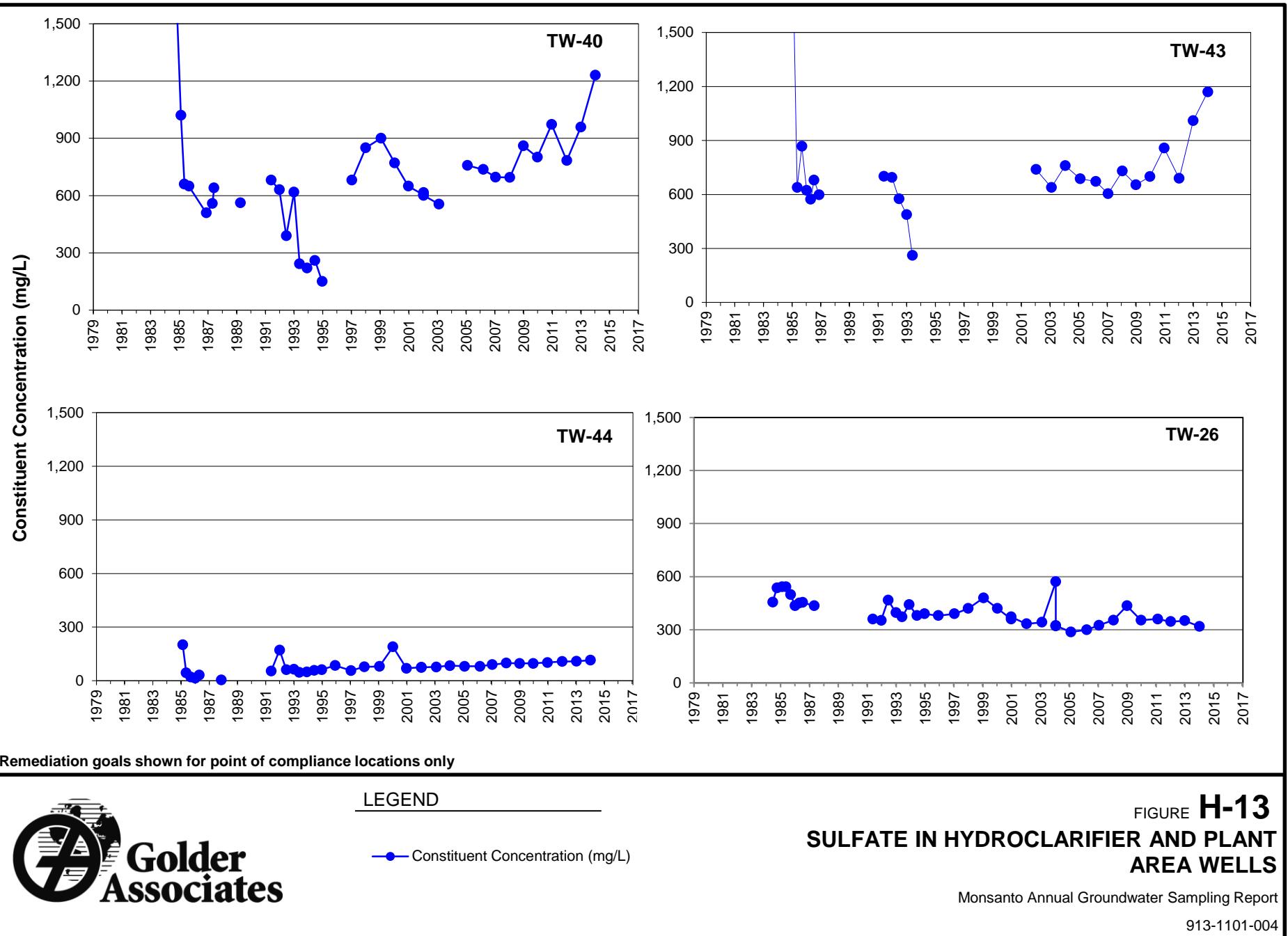
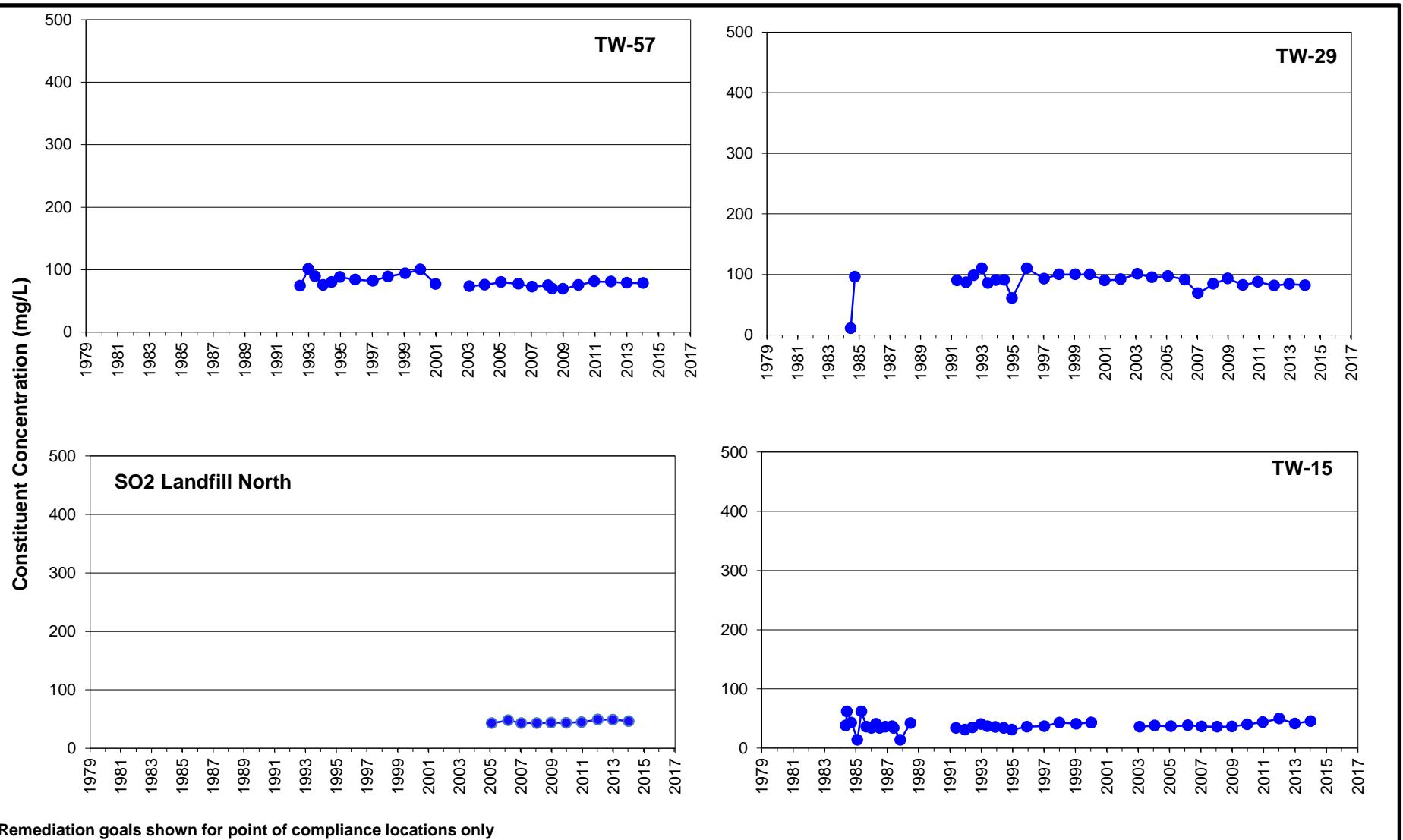


FIGURE H-13
SULFATE IN HYDROCLARIFIER AND PLANT AREA WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

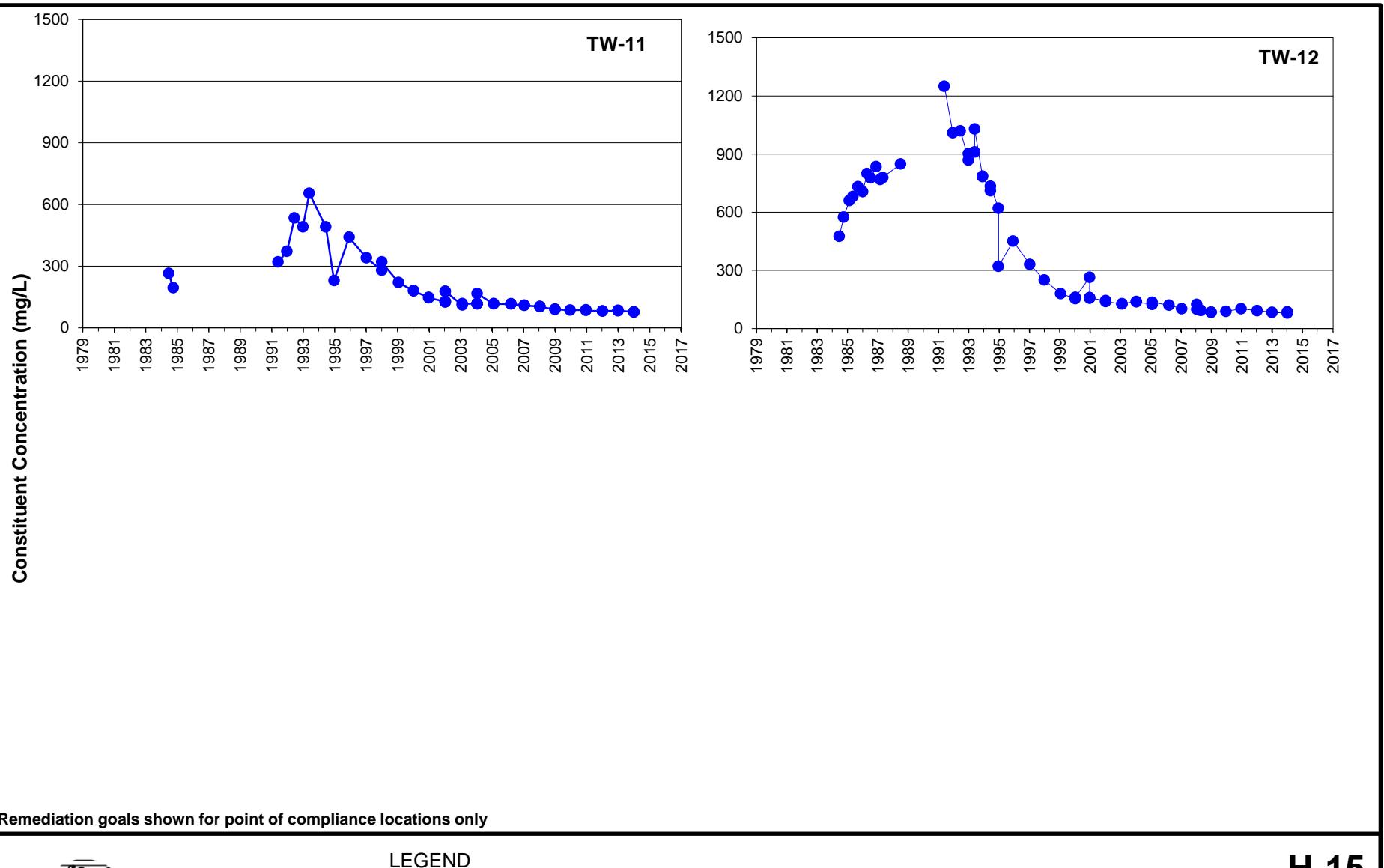
Constituent Concentration (mg/L)

FIGURE H-14

SULFATE IN BACKGROUND WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

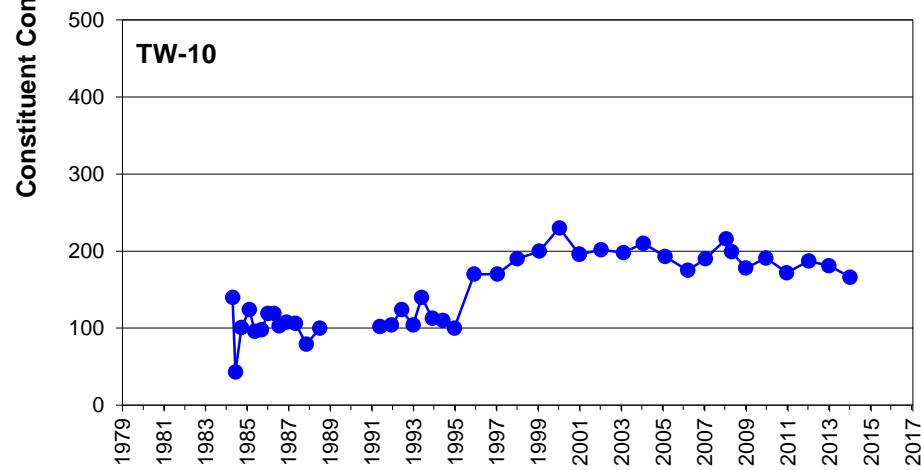
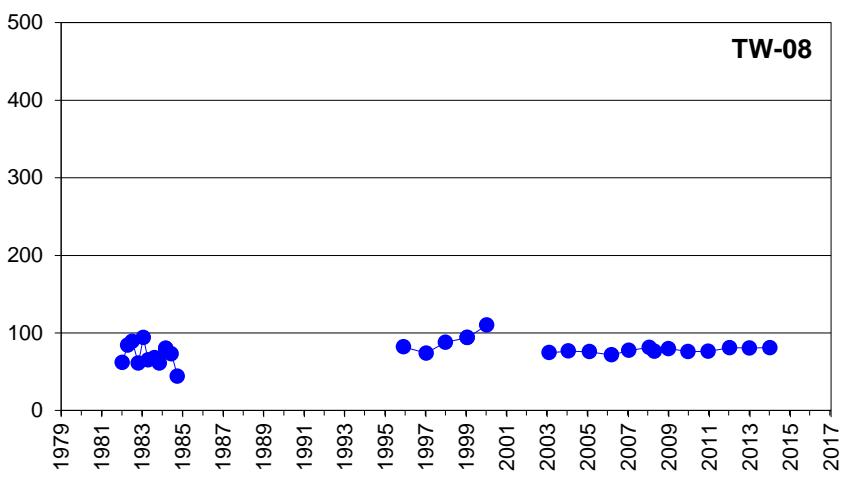
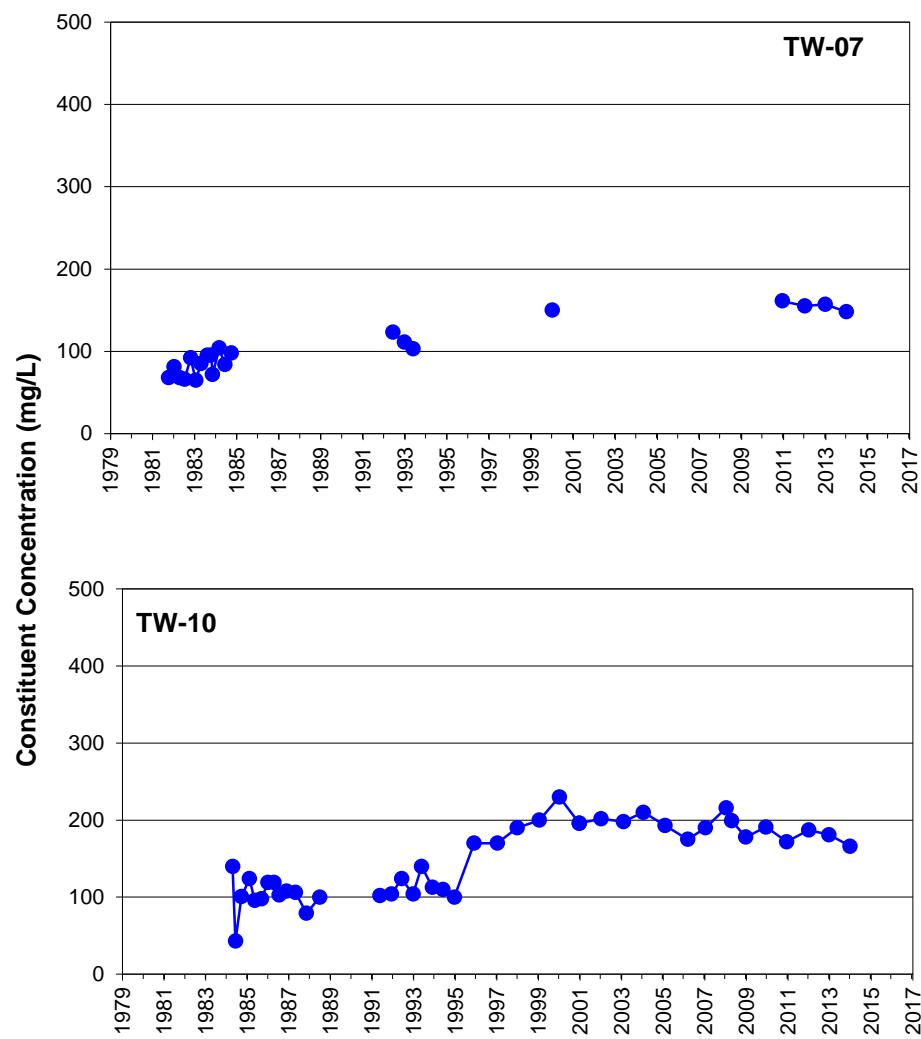
—●— Constituent Concentration (mg/L)

FIGURE H-15

SULFATE IN SOUTHEAST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

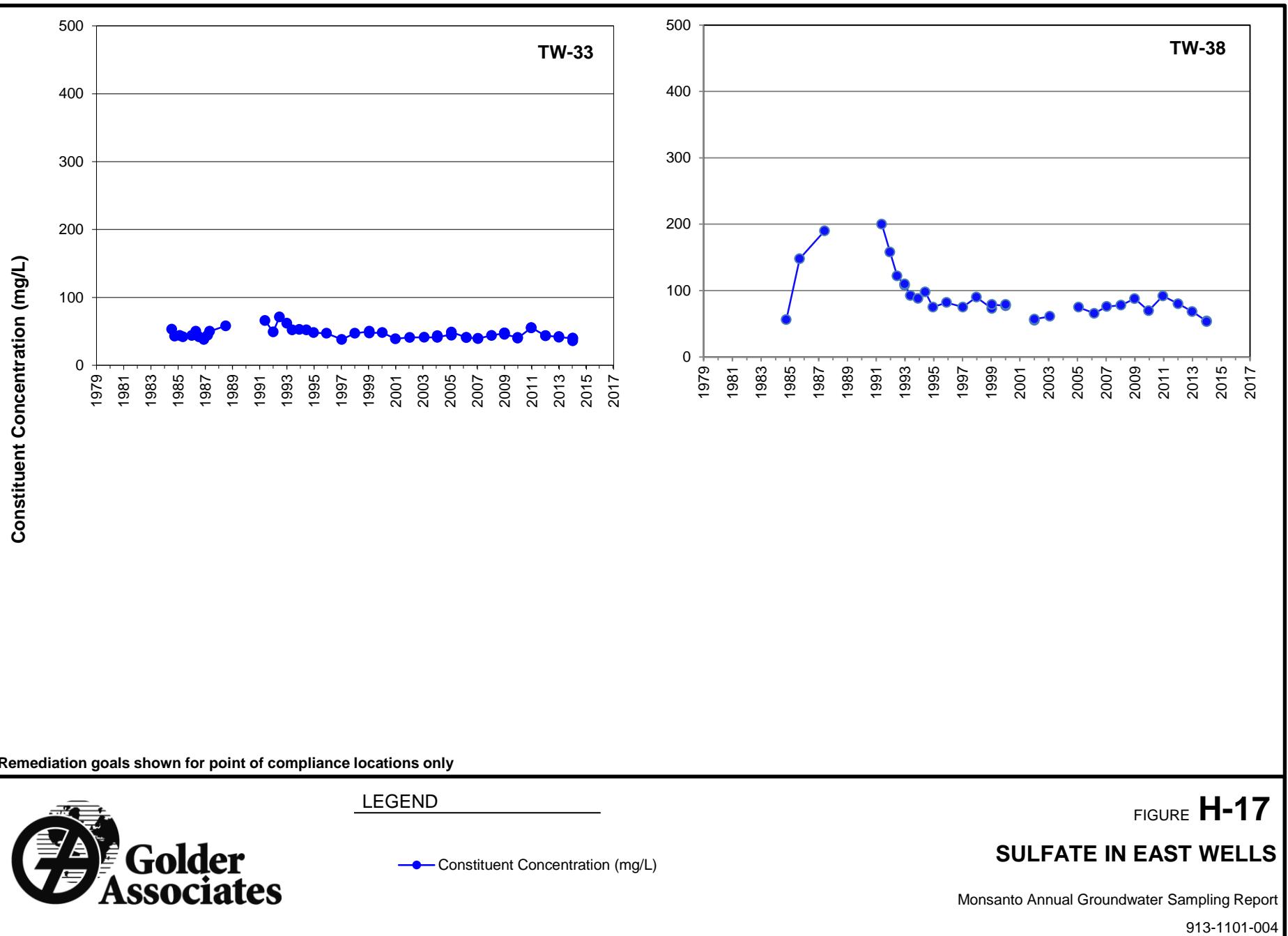
—●— Constituent Concentration (mg/L)

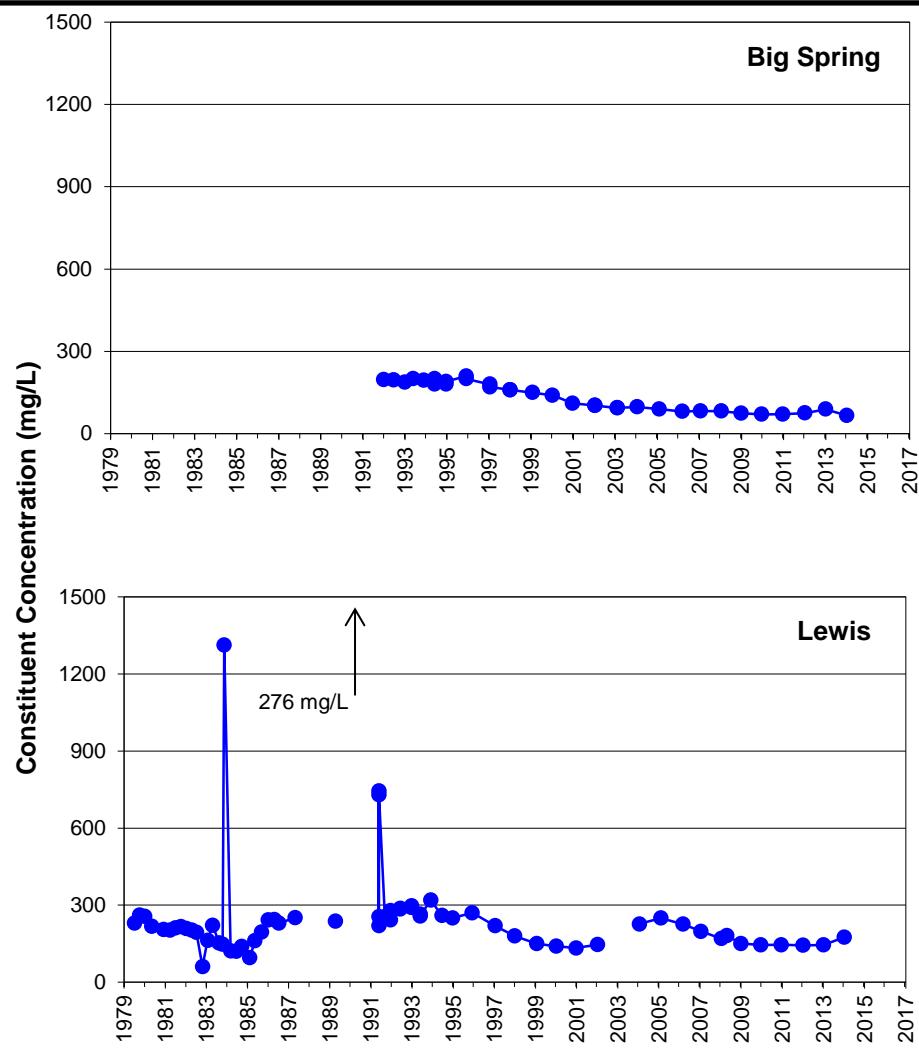
FIGURE H-16

SULFATE IN SOUTHWEST CORNER WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004





Remediation goals shown for point of compliance locations only



LEGEND

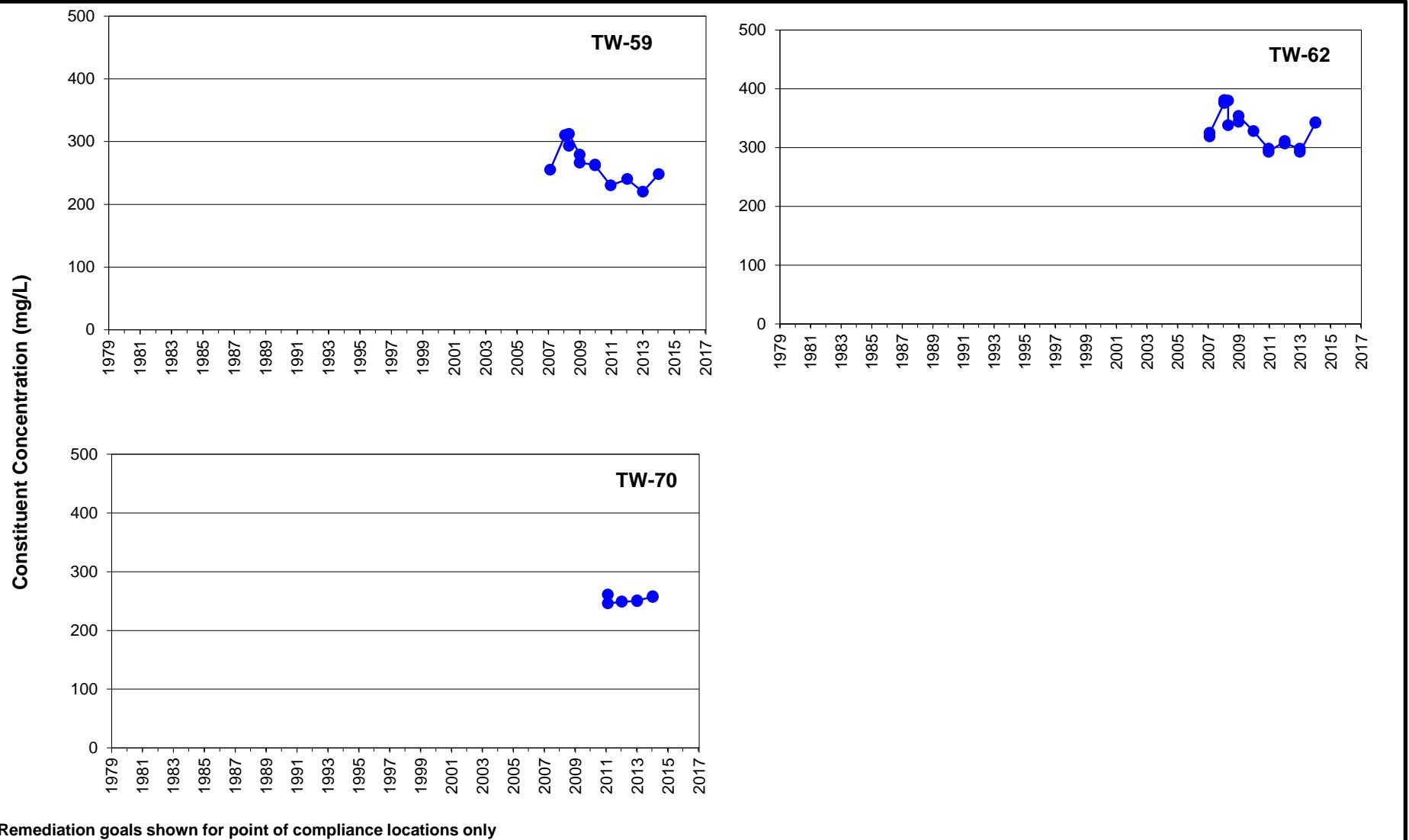
Constituent Concentration (mg/L)

FIGURE H-18

SULFATE IN OFFSITE WELLS AND SPRINGS

Monsanto Annual Groundwater Sampling Report

913-1101-004



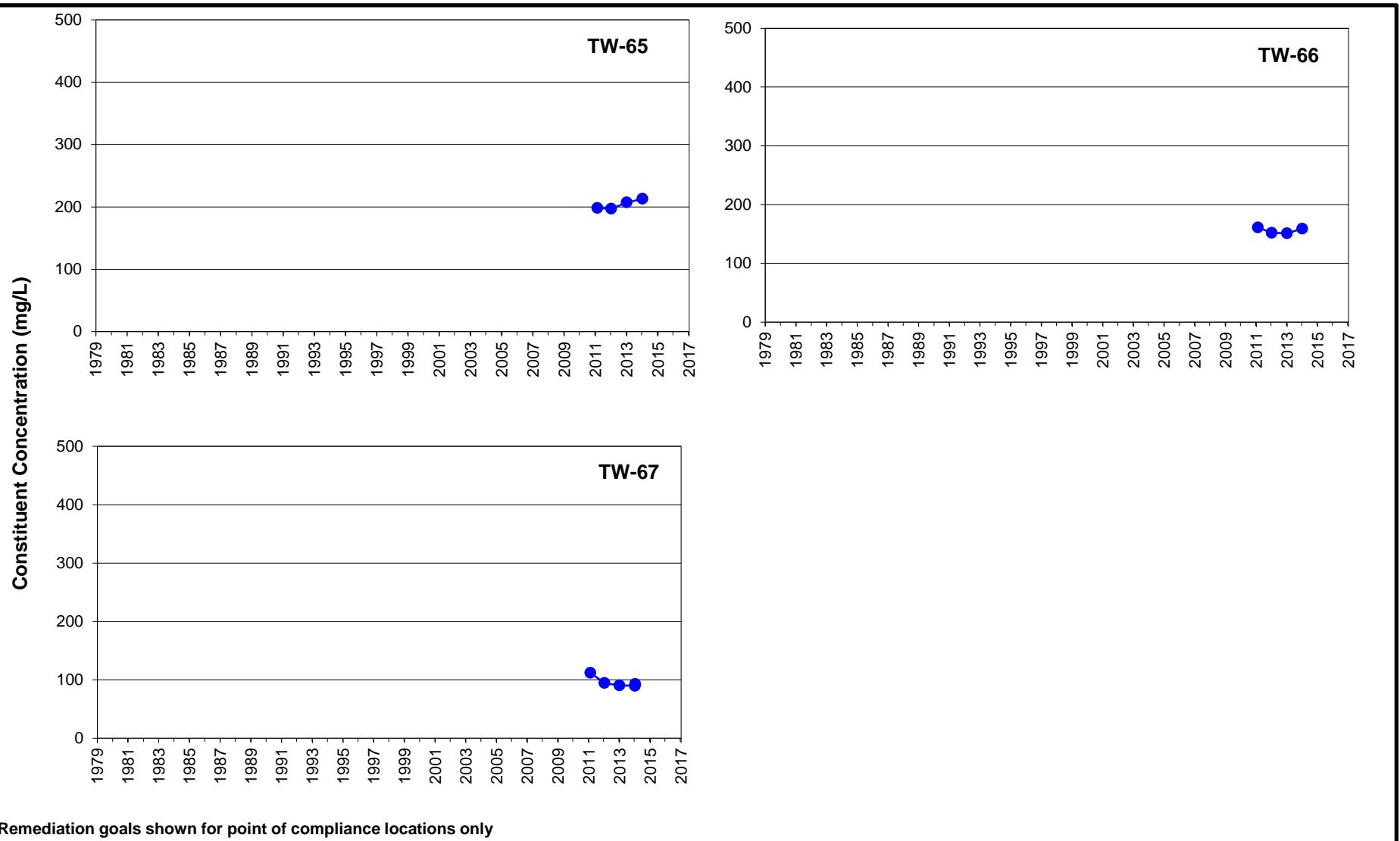
LEGEND

Constituent Concentration (mg/L)

FIGURE H-19
SULFATE IN UBZ-2 WELLS SOUTH OF SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



LEGEND

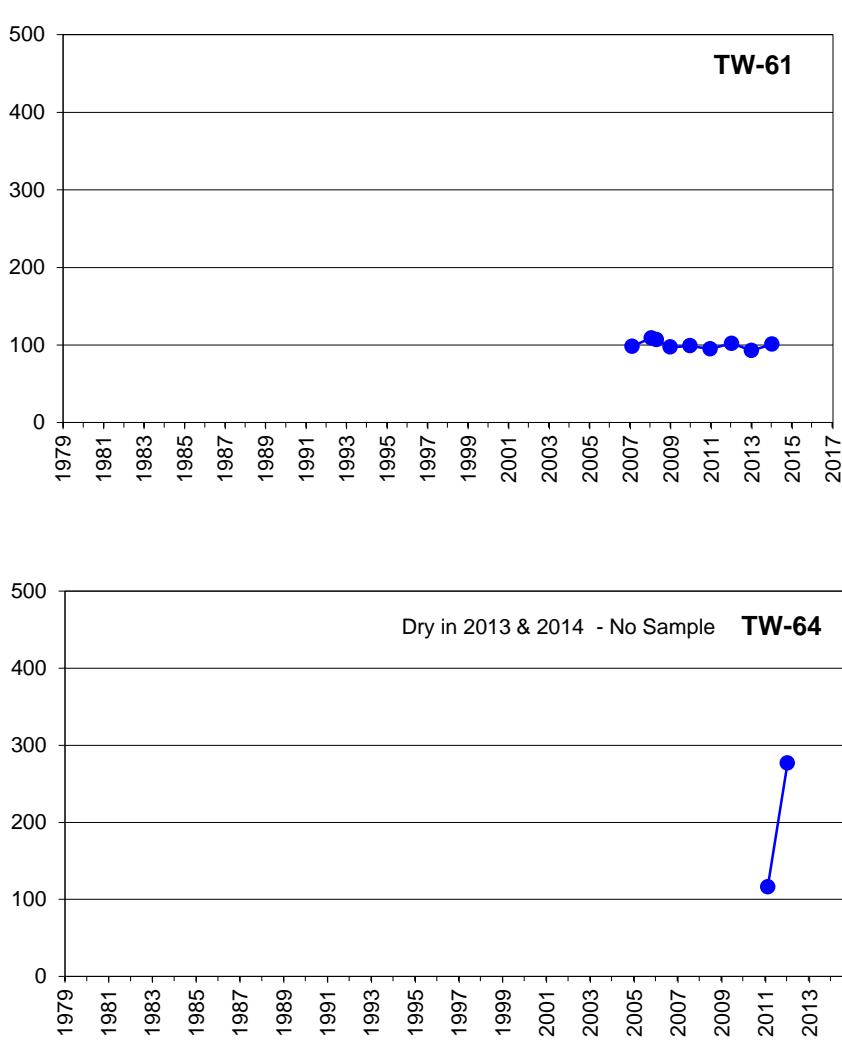
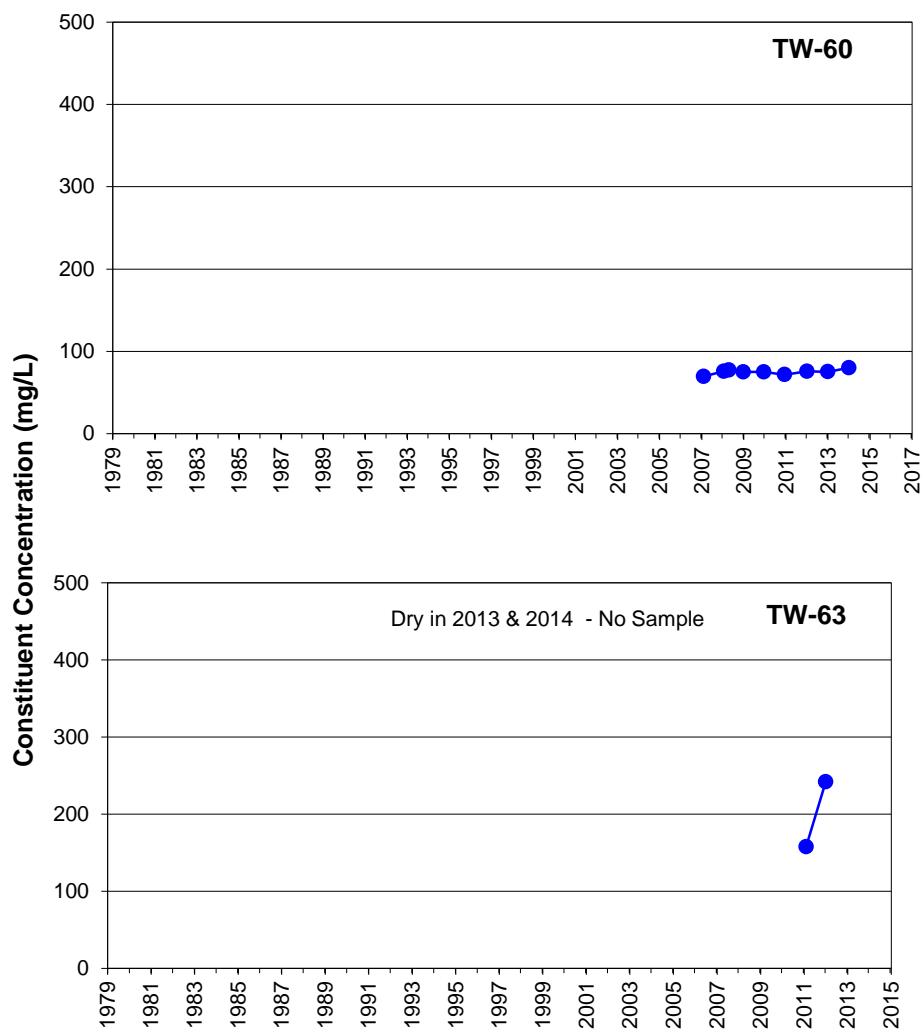
—●— Constituent Concentration (mg/L)

FIGURE H-20

SULFATE IN UBZ-2 WELLS AT PROPERTY LINE

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

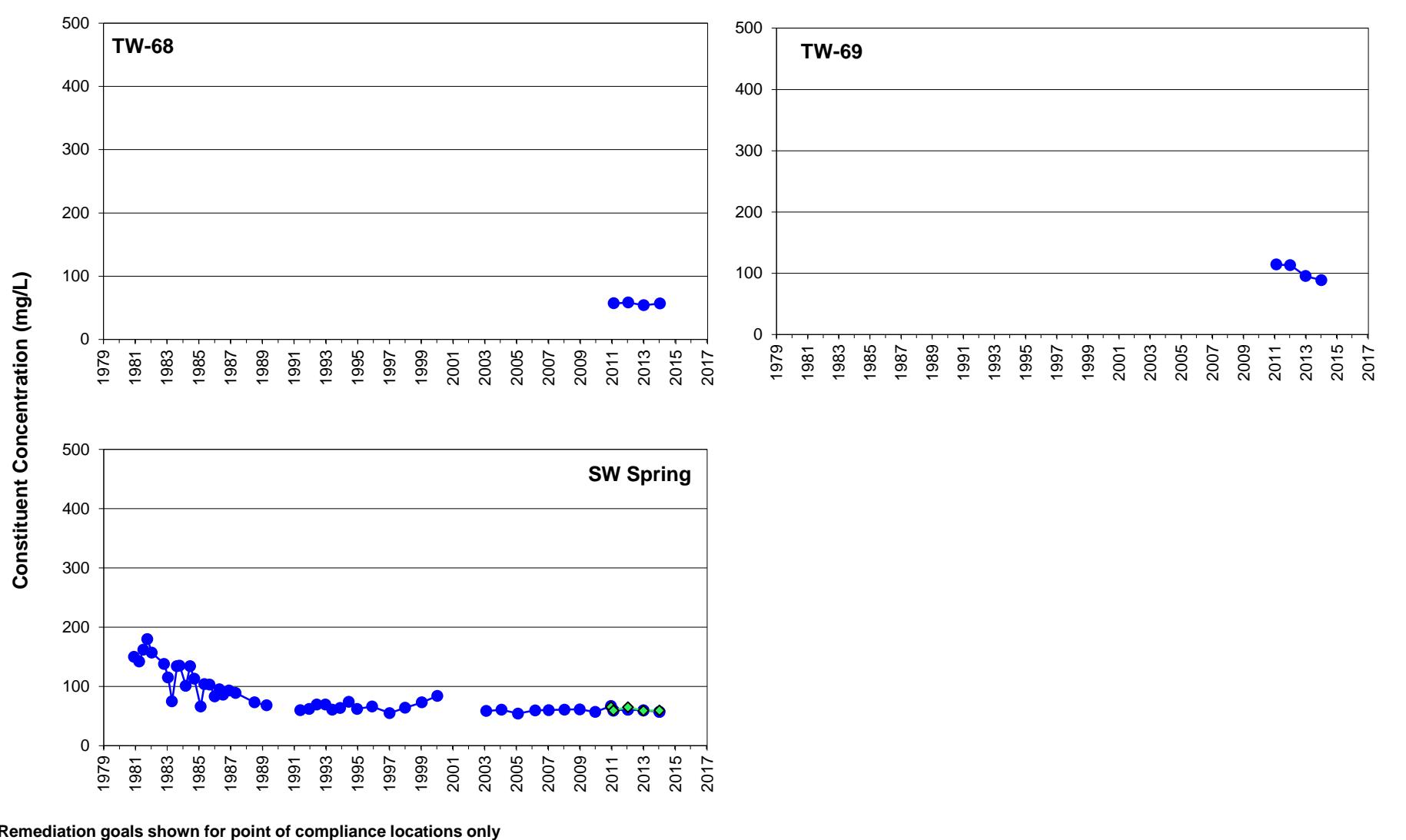
● Constituent Concentration (mg/L)

FIGURE H-21

SULFATE IN SOUTHERN BOUNDARY WELLS

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

—●— Constituent Concentration (mg/L)

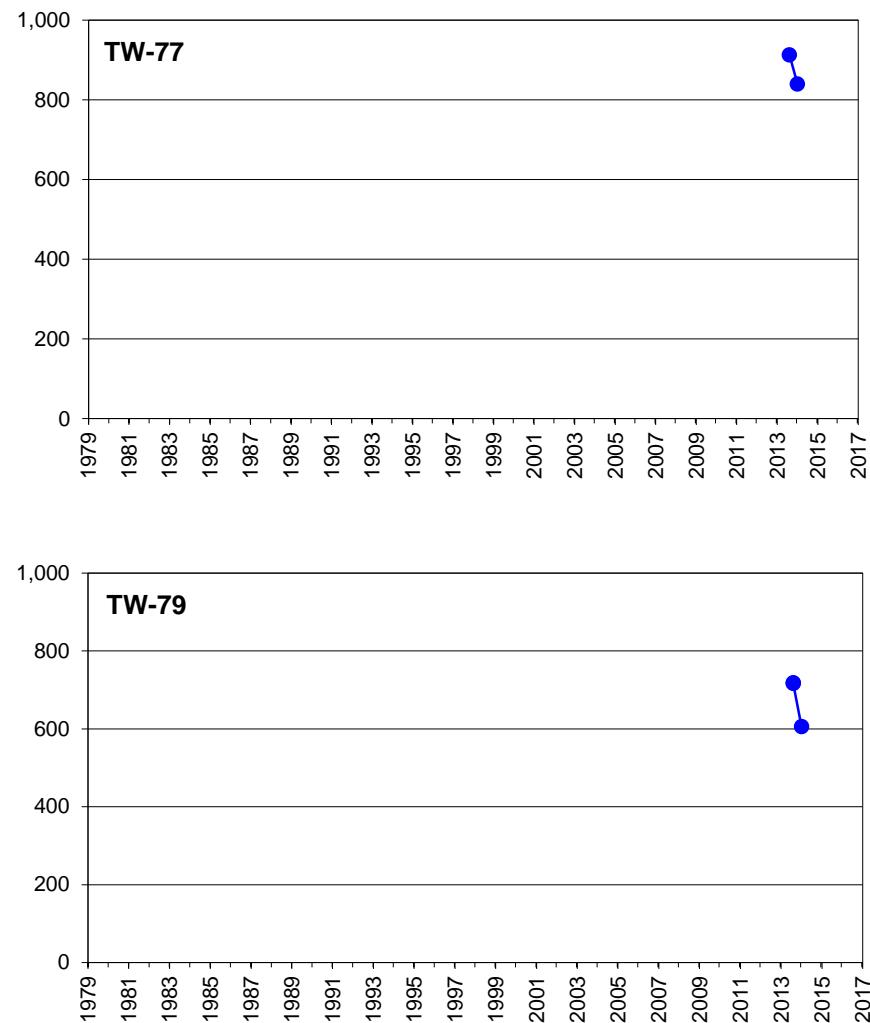
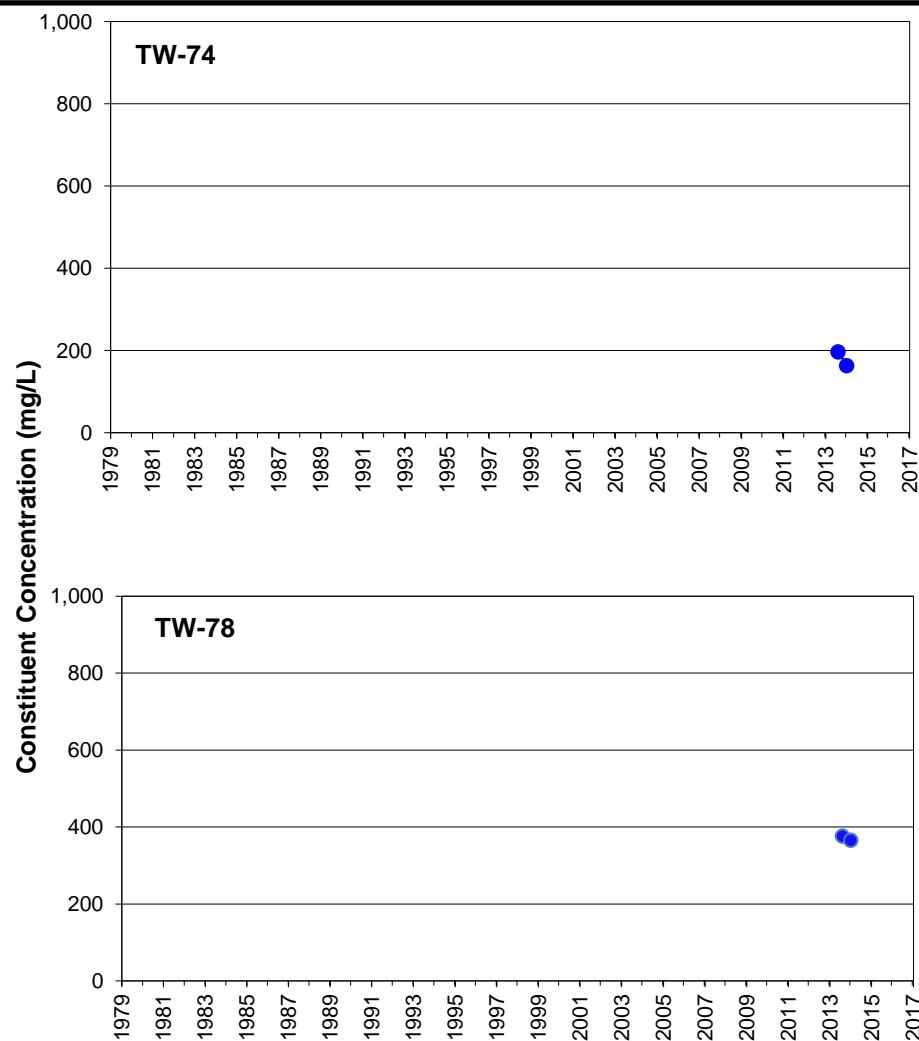
—◆— SW Spring above confluence with Soda Creek

FIGURE H-22

SULFATE IN UBZ-1 WELLS AND SPRINGS WEST OF THE PLANT

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



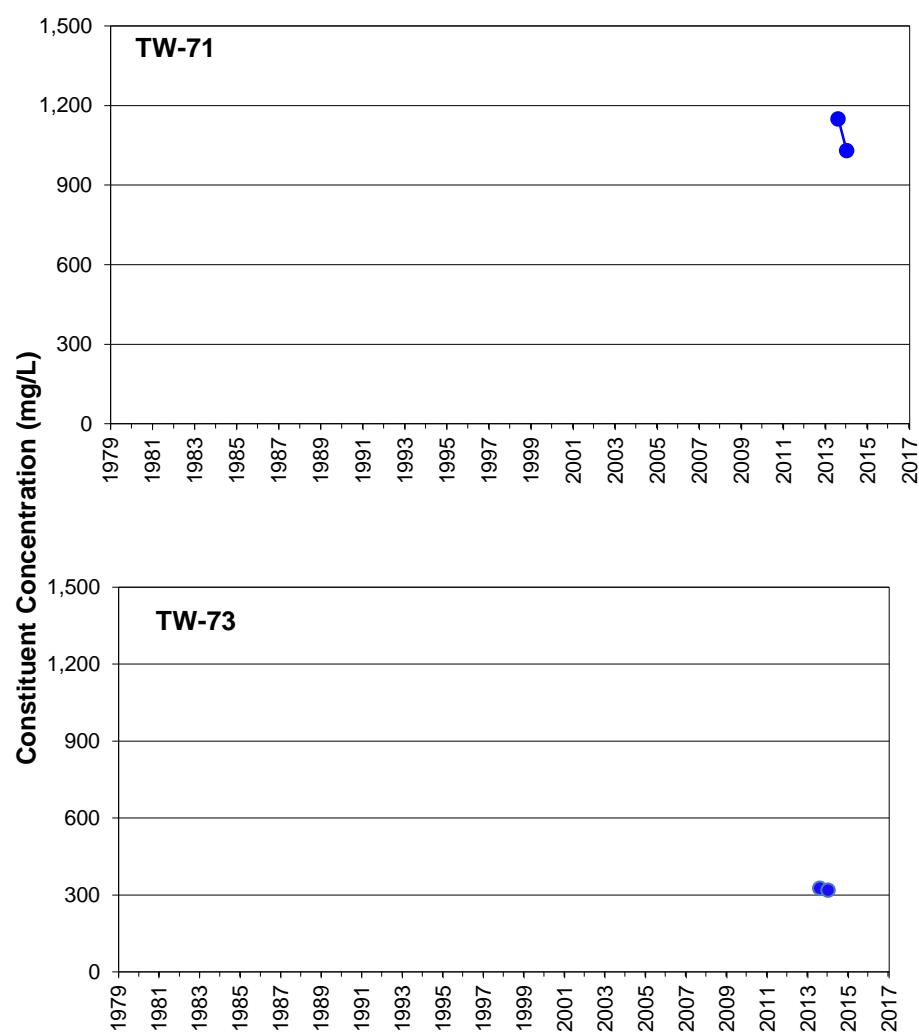
LEGEND

—●— Constituent Concentration (mg/L)

FIGURE H-23
SULFATE IN UBZ-4 TAILINGS POND
SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



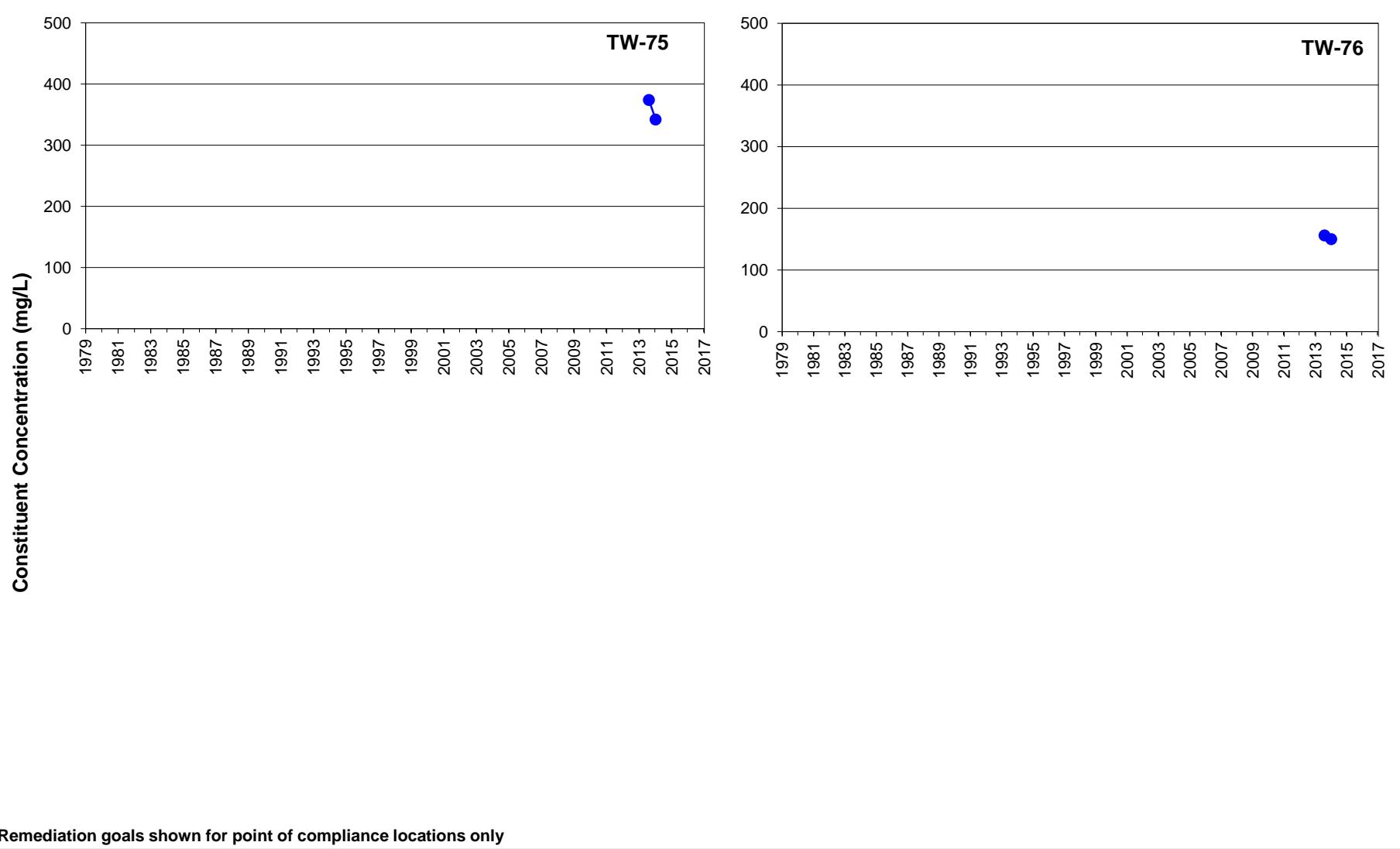
LEGEND

- Constituent Concentration (mg/L)

FIGURE H-24
SULFATE IN UBZ-2 OLD UFS PONDS SOURCE AREA

Monsanto Annual Groundwater Sampling Report

913-1101-004



Remediation goals shown for point of compliance locations only



LEGEND

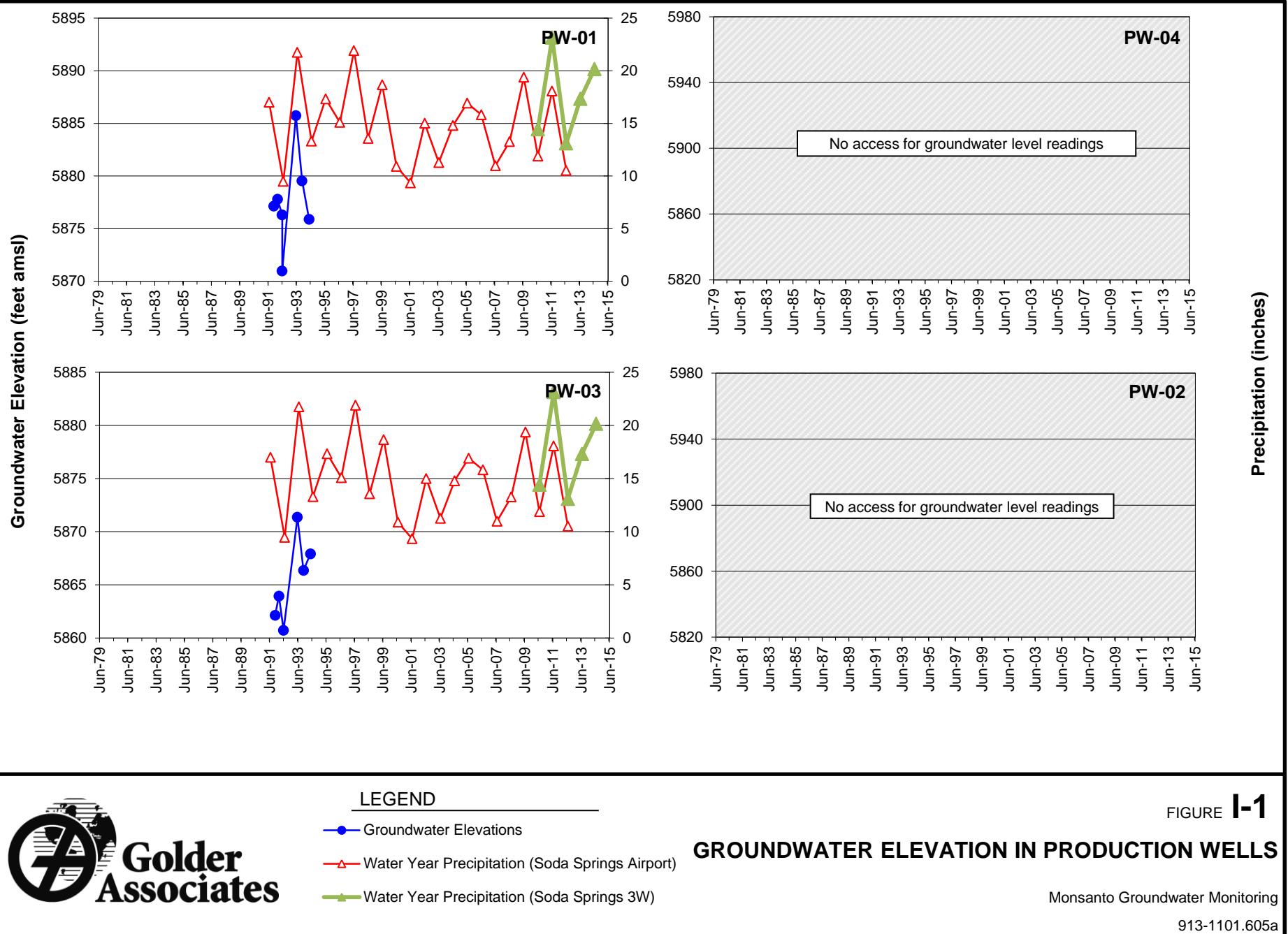
● Constituent Concentration (mg/L)

FIGURE H-25
SULFATE IN UBZ-2 TAILINGS POND
SOURCE AREA

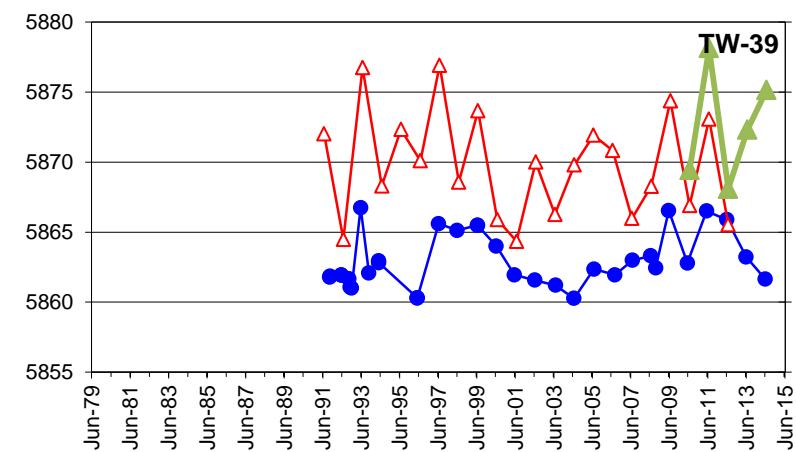
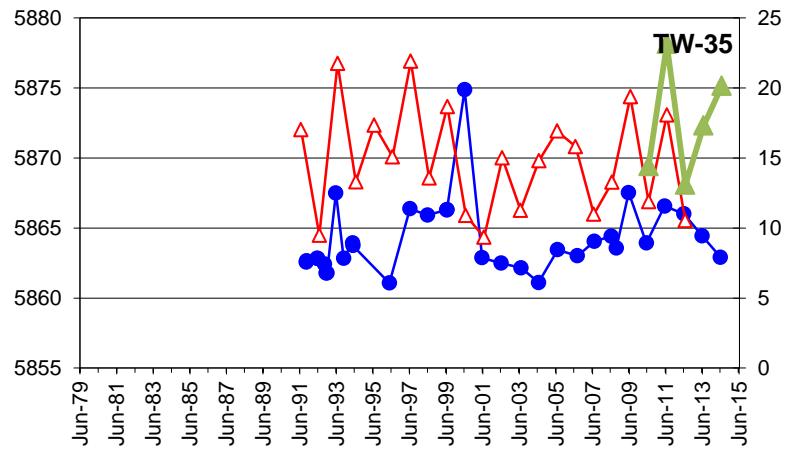
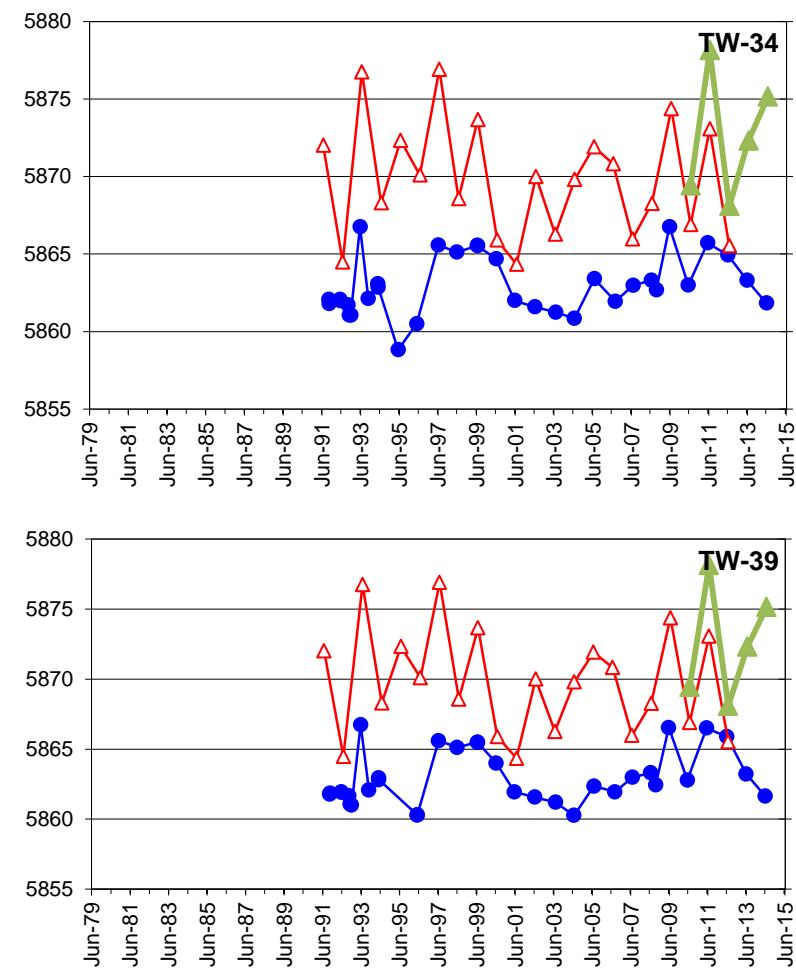
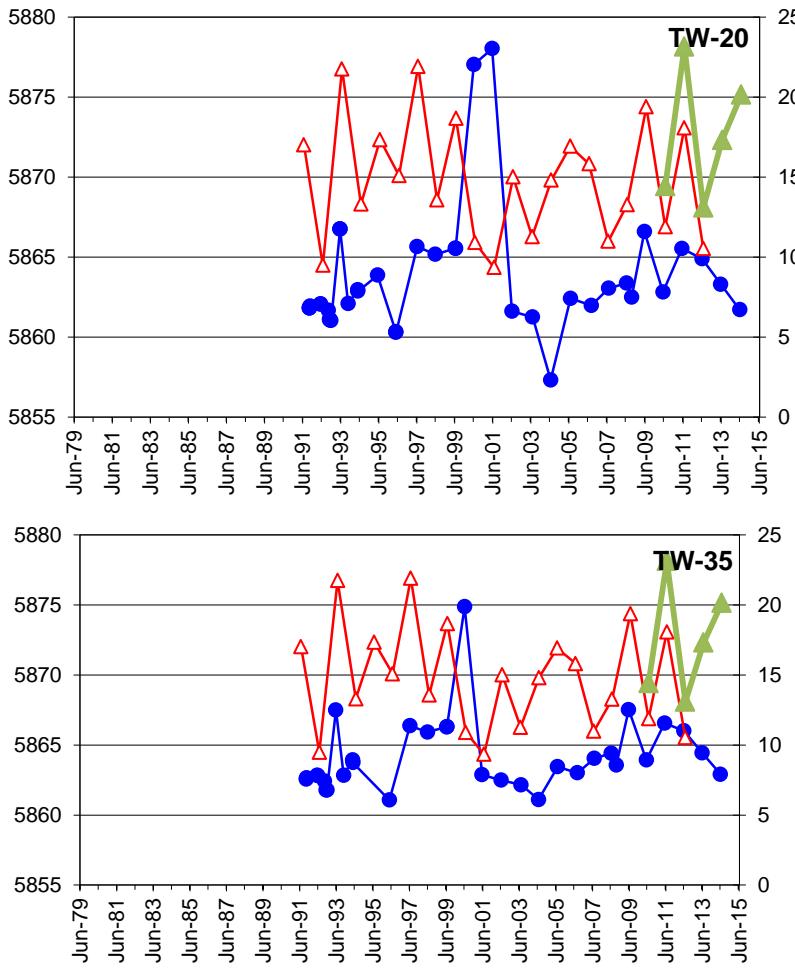
Monsanto Annual Groundwater Sampling Report

913-1101-004

APPENDIX I
GROUNDWATER ELEVATION HYDROGRAPHS



Groundwater Elevation (feet amsl)



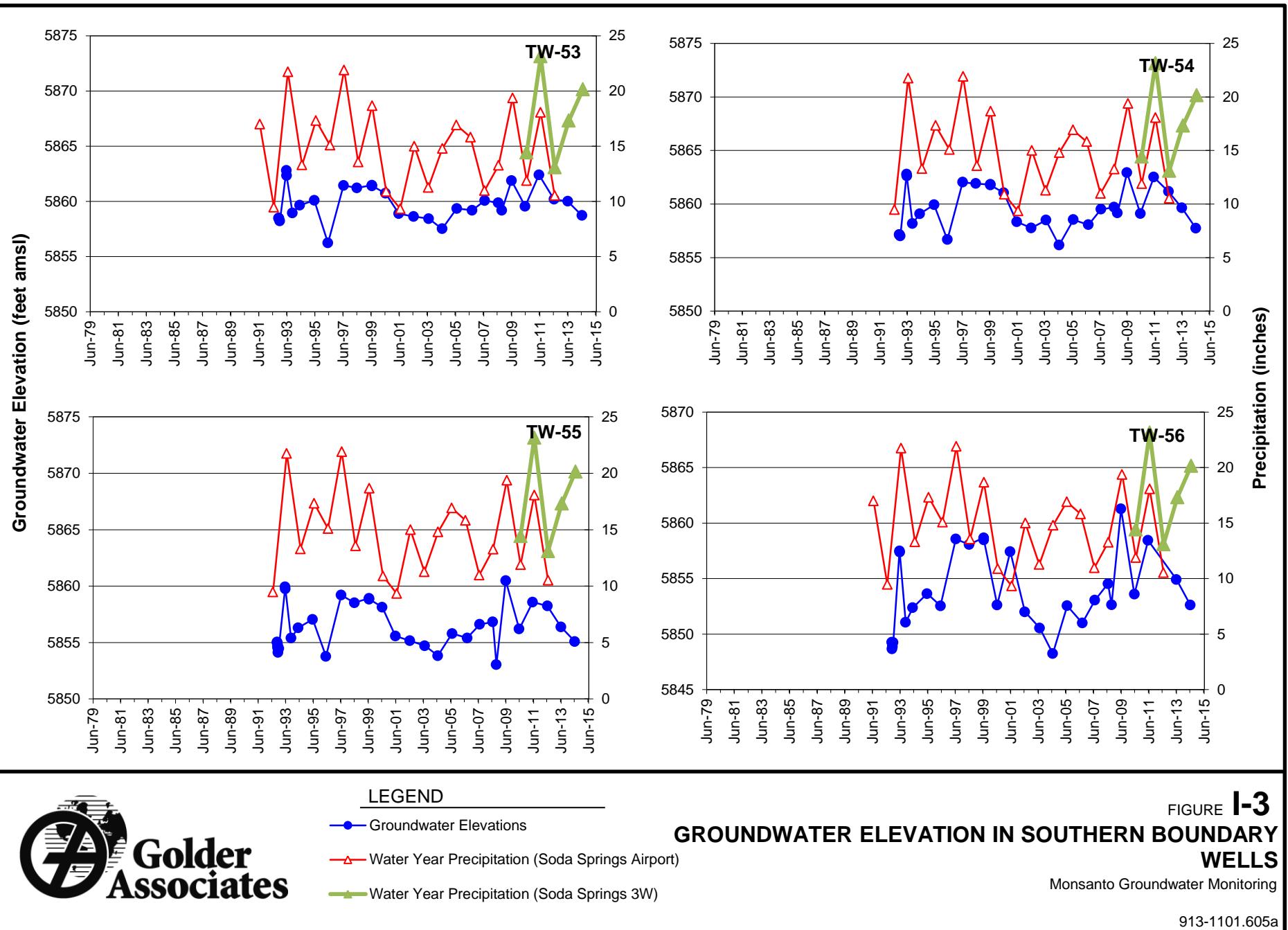
LEGEND

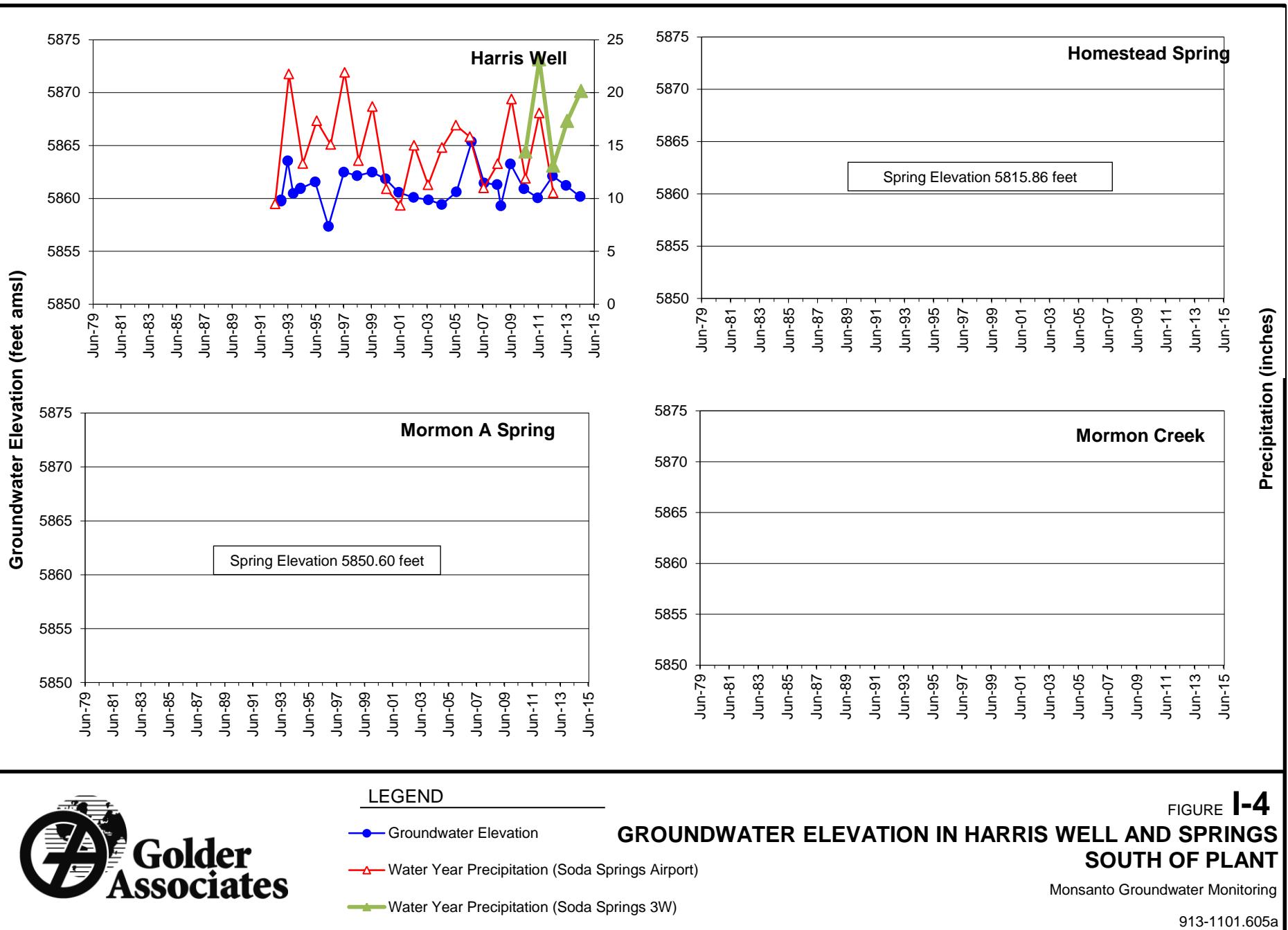
- Groundwater Elevations
- ▲ Water Year Precipitation (Soda Springs Airport)
- Water Year Precipitation (Soda Springs 3W)

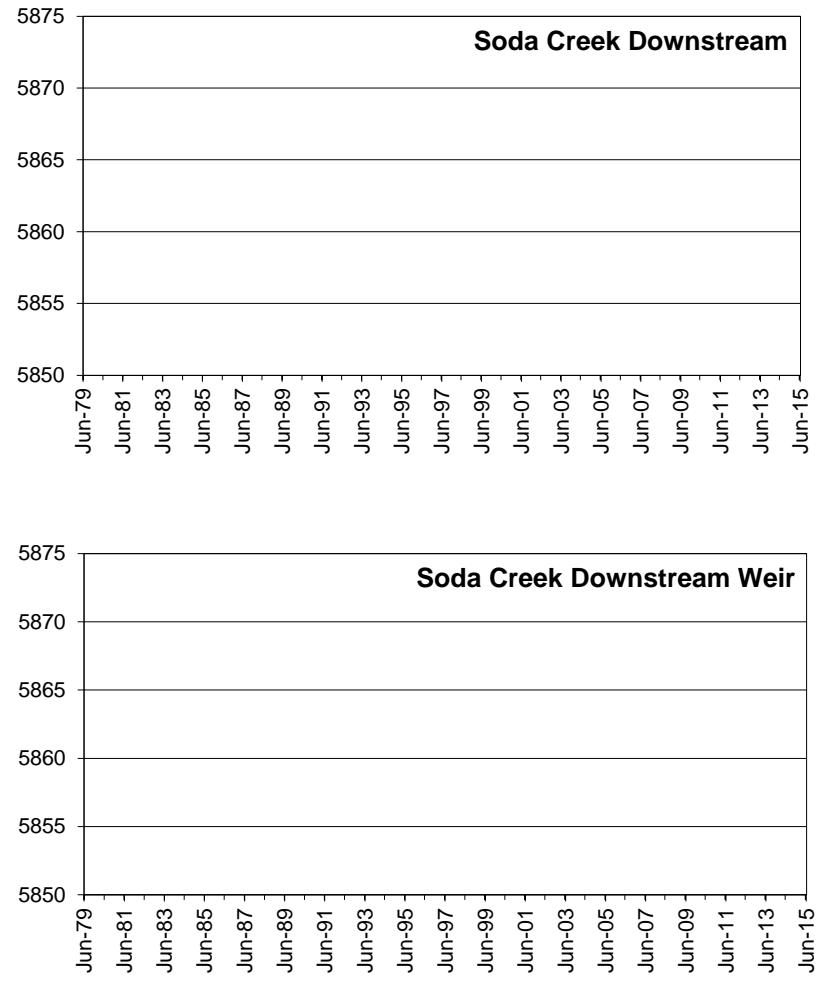
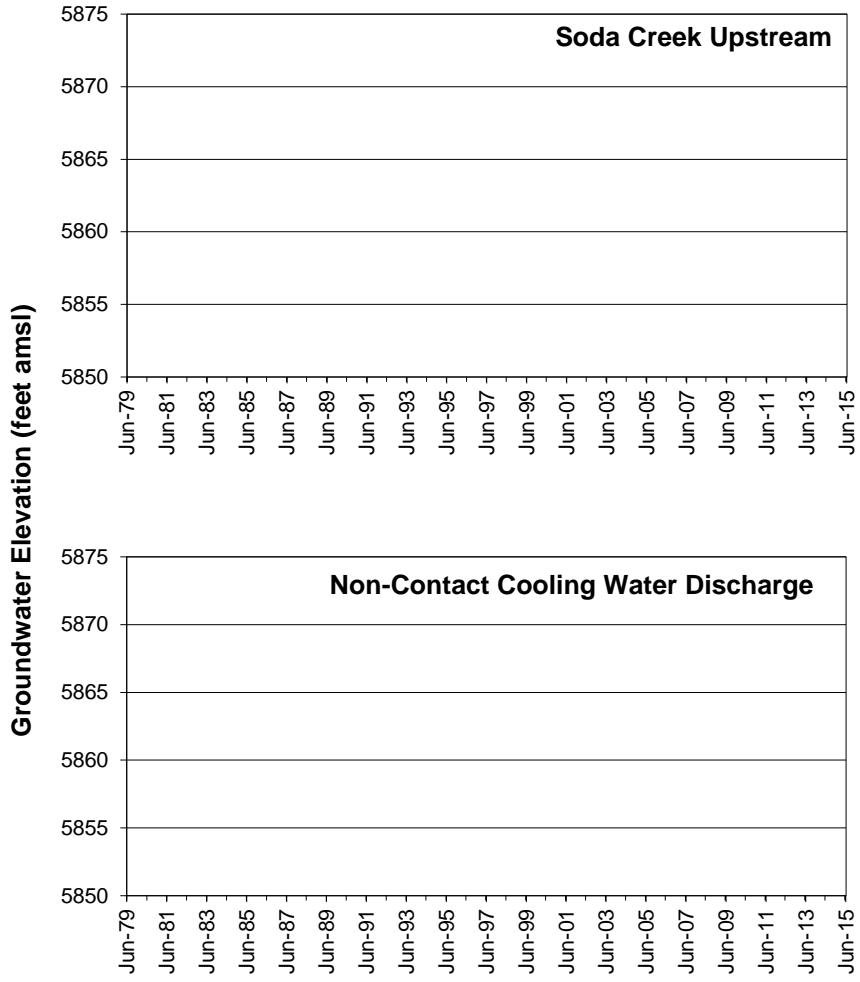
GROUNDWATER ELEVATION IN SOUTH FENCELINE WELLS

Monsanto Groundwater Monitoring

913-1101.605a







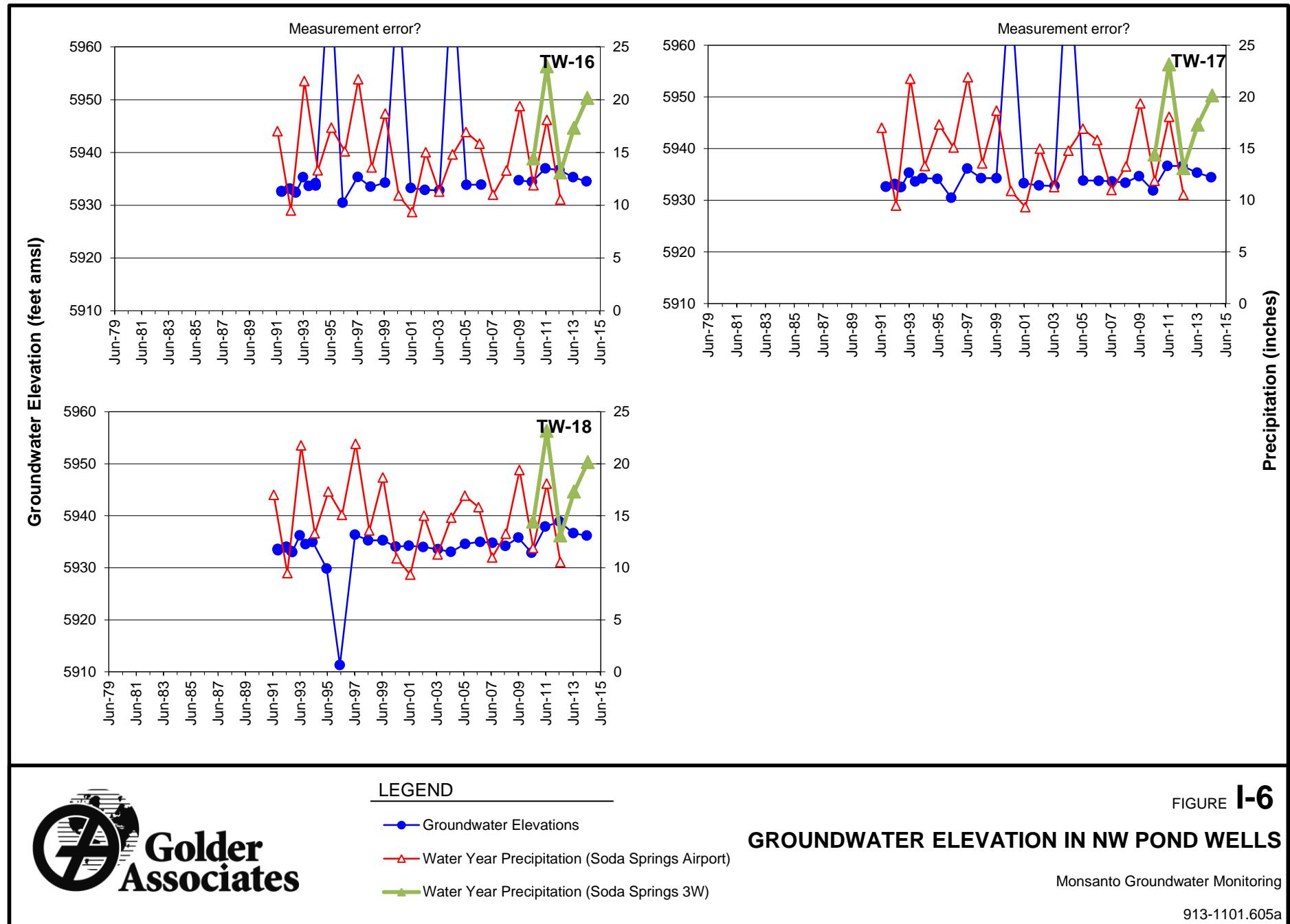
LEGEND

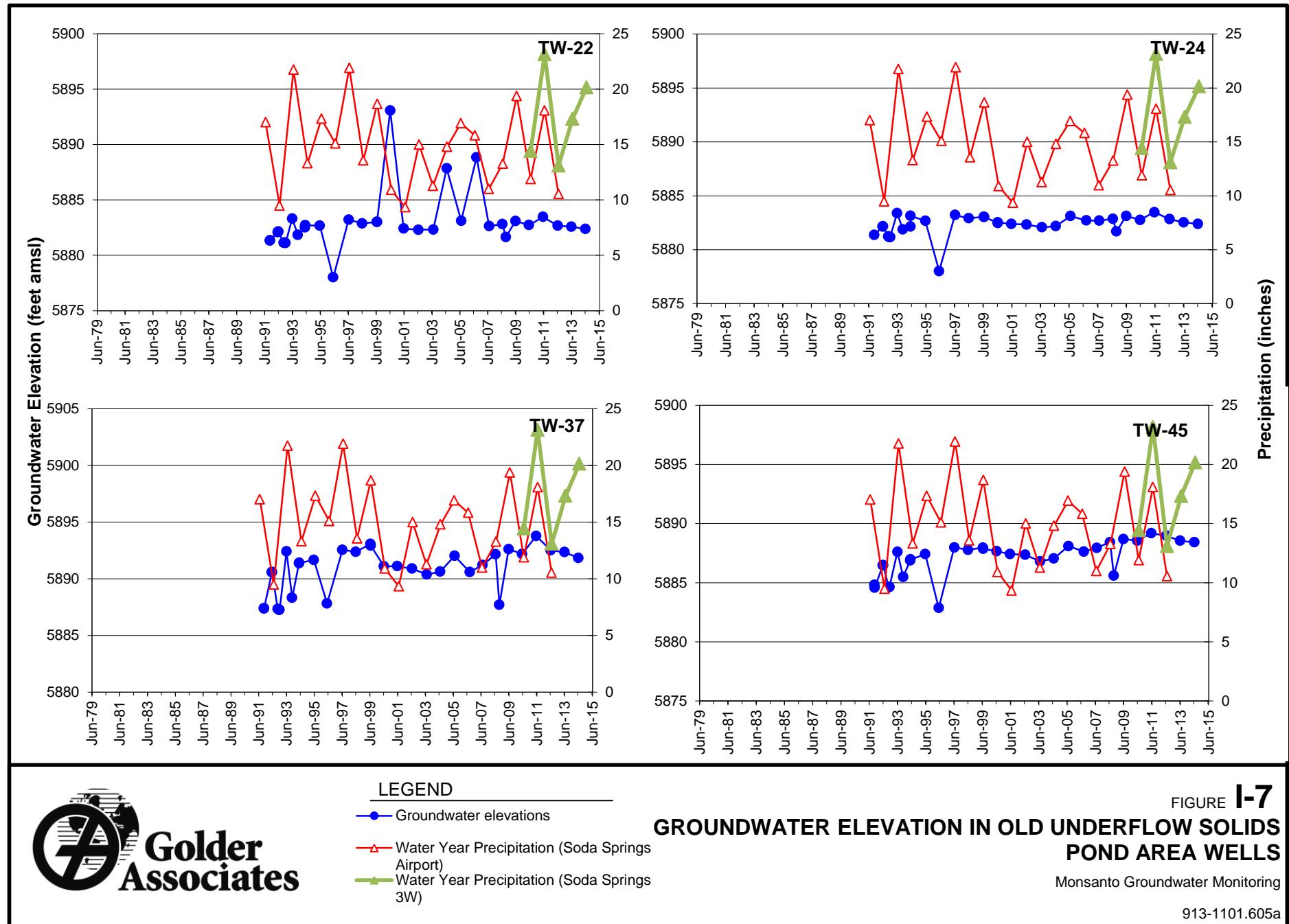
FIGURE I-5

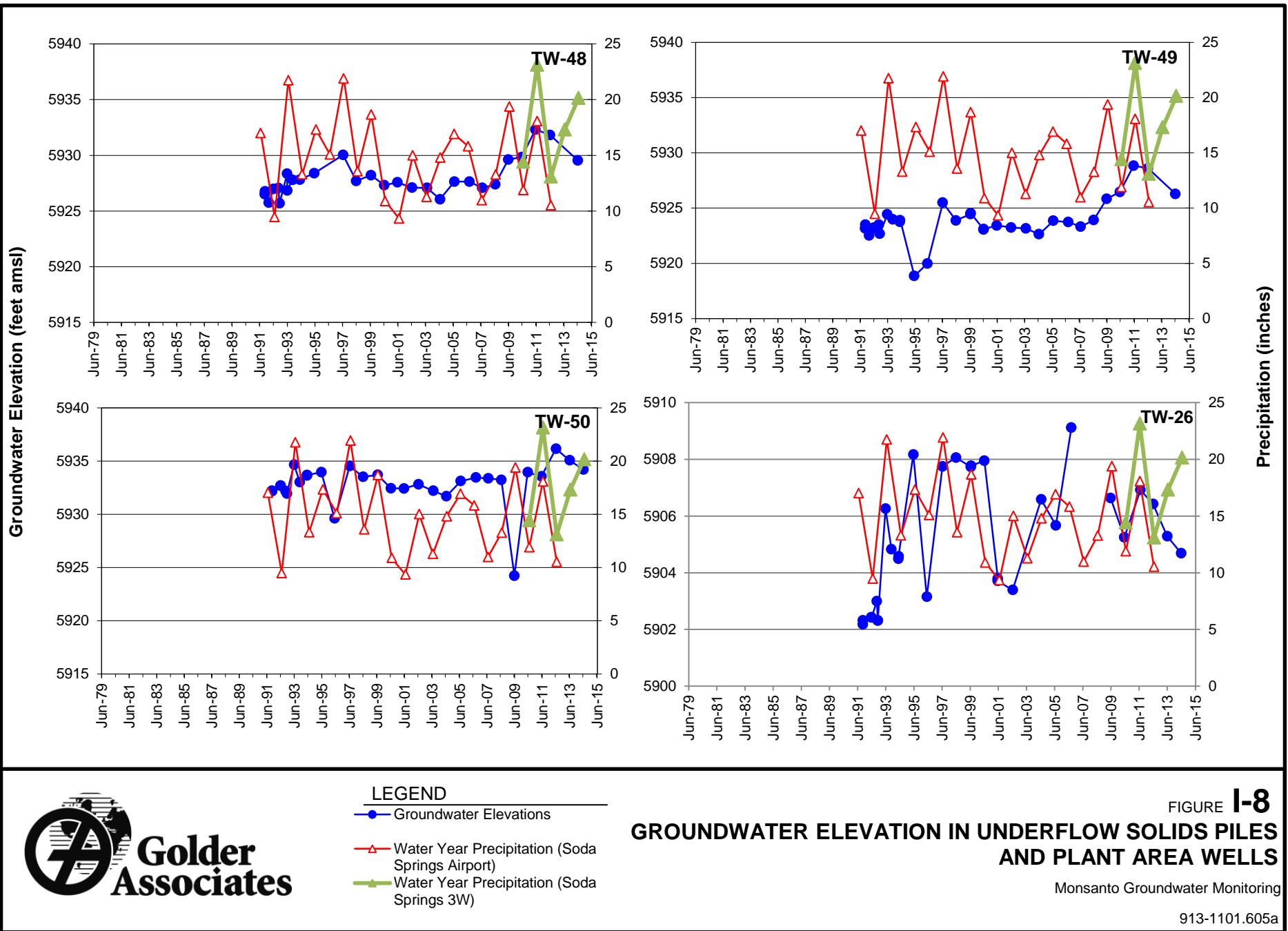
GROUNDWATER ELEVATION IN SODA CREEK AND NON-CONTACT COOLING WATER DISCHARGE

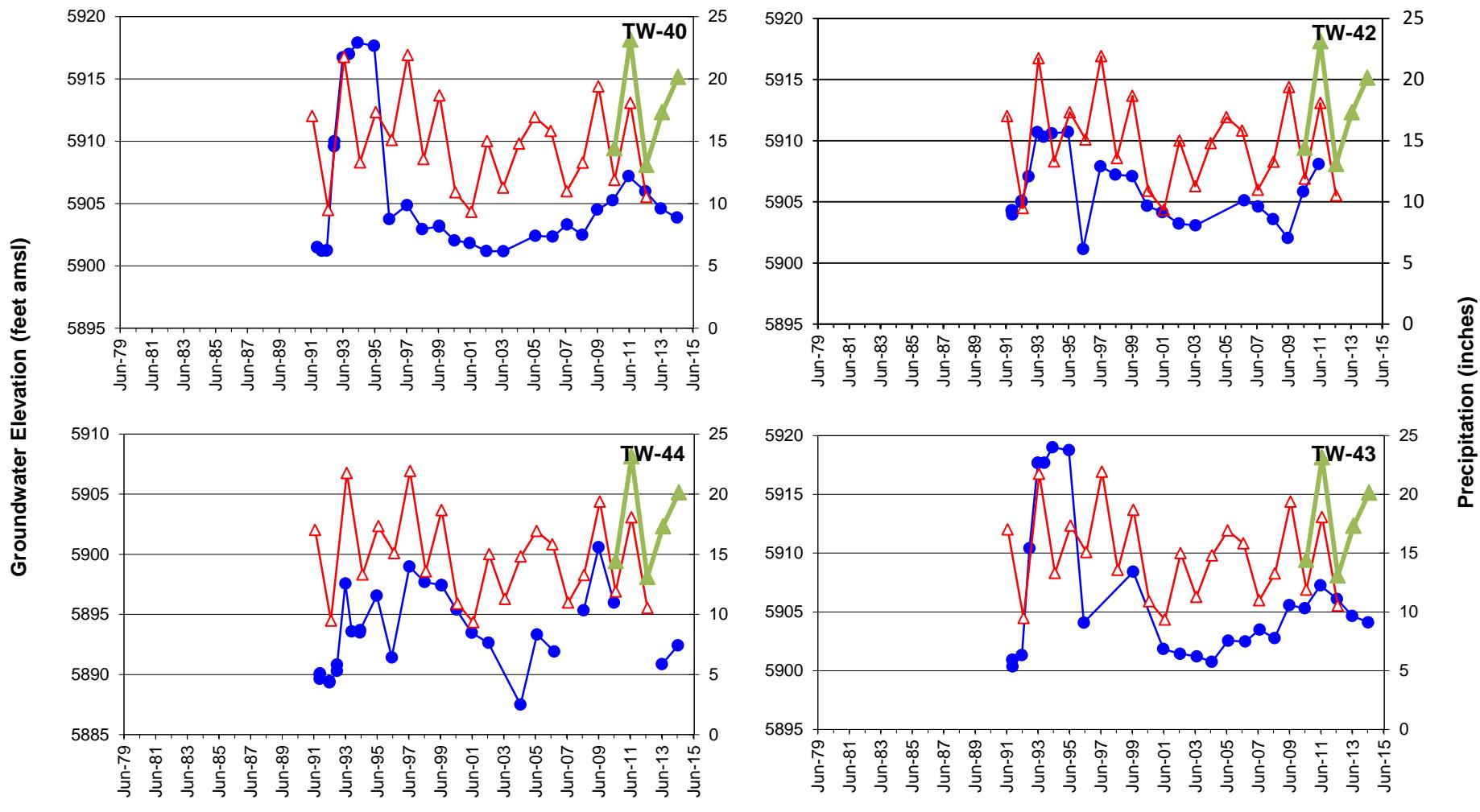
Monsanto Groundwater Monitoring

913-1101.605a







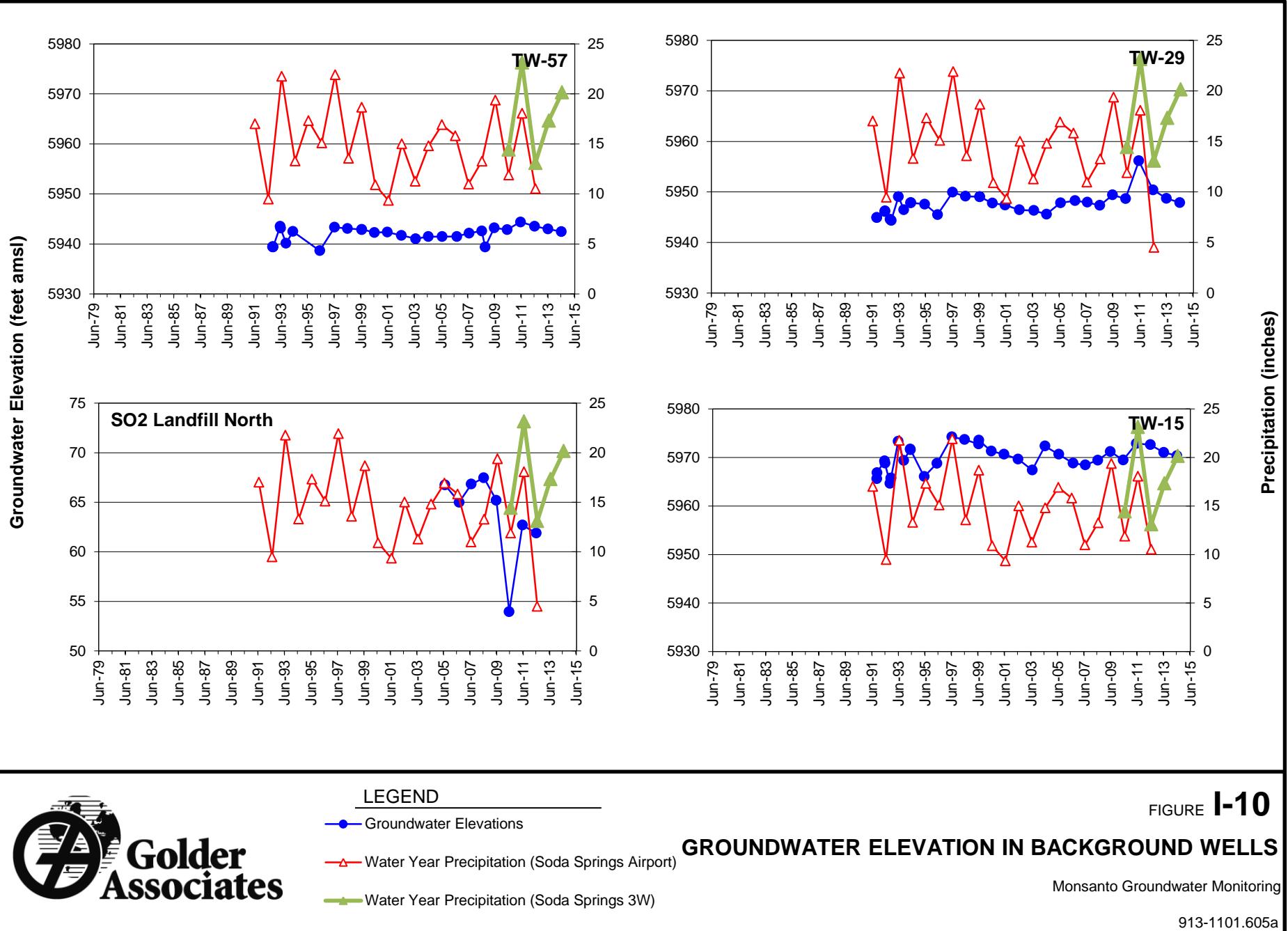


- LEGEND**
- Groundwater elevations
 - △— Water Year Precipitation (Soda Springs Airport)
 - ▲— Water Year Precipitation (Soda Springs 3W)

FIGURE I-9
**GROUNDWATER ELEVATION IN HYDROCLARIFIER AREA
WELLS**

Monsanto Groundwater Monitoring

913-1101.605a



LEGEND

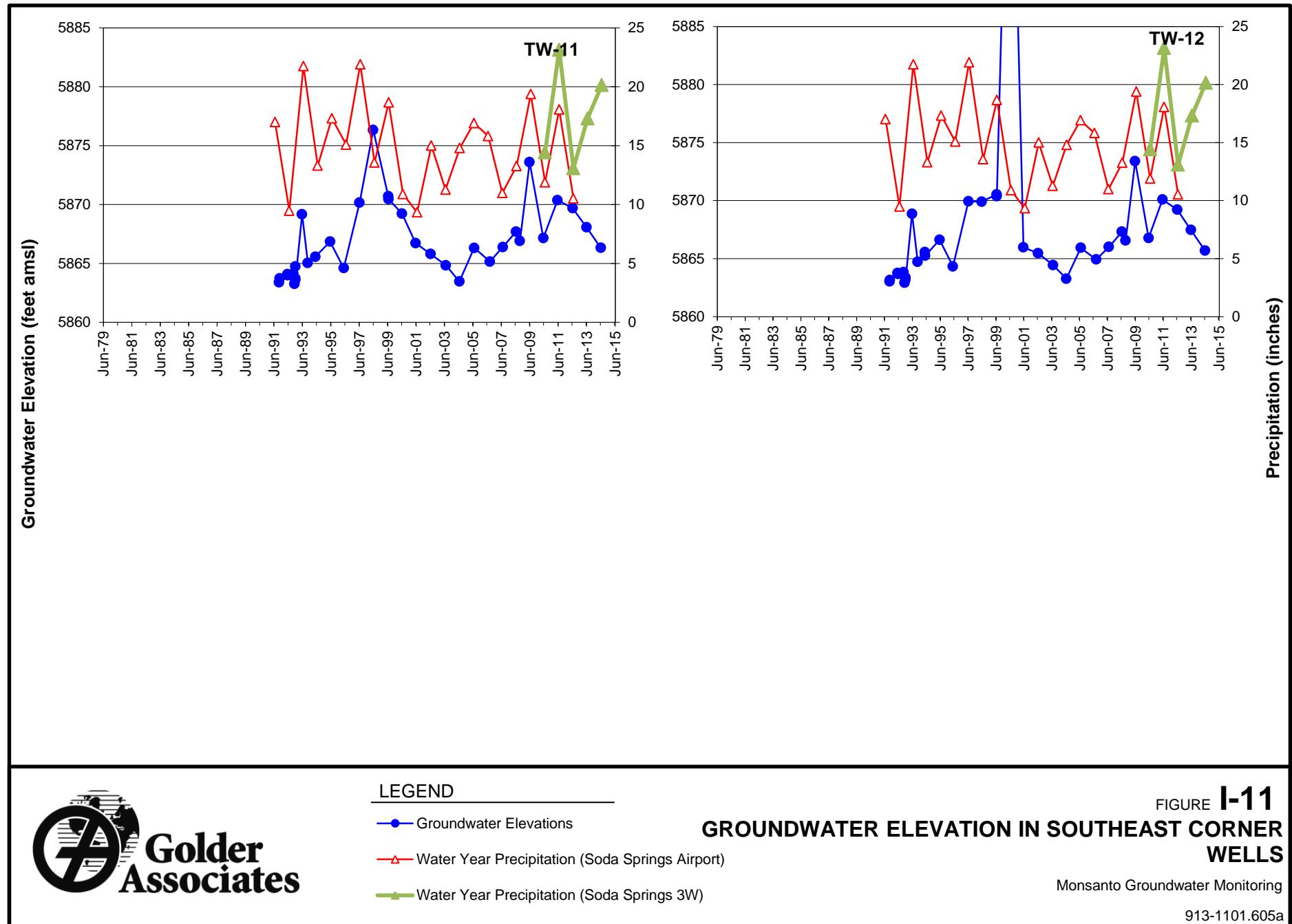
- Groundwater Elevations
- Water Year Precipitation (Soda Springs Airport)
- Water Year Precipitation (Soda Springs 3W)

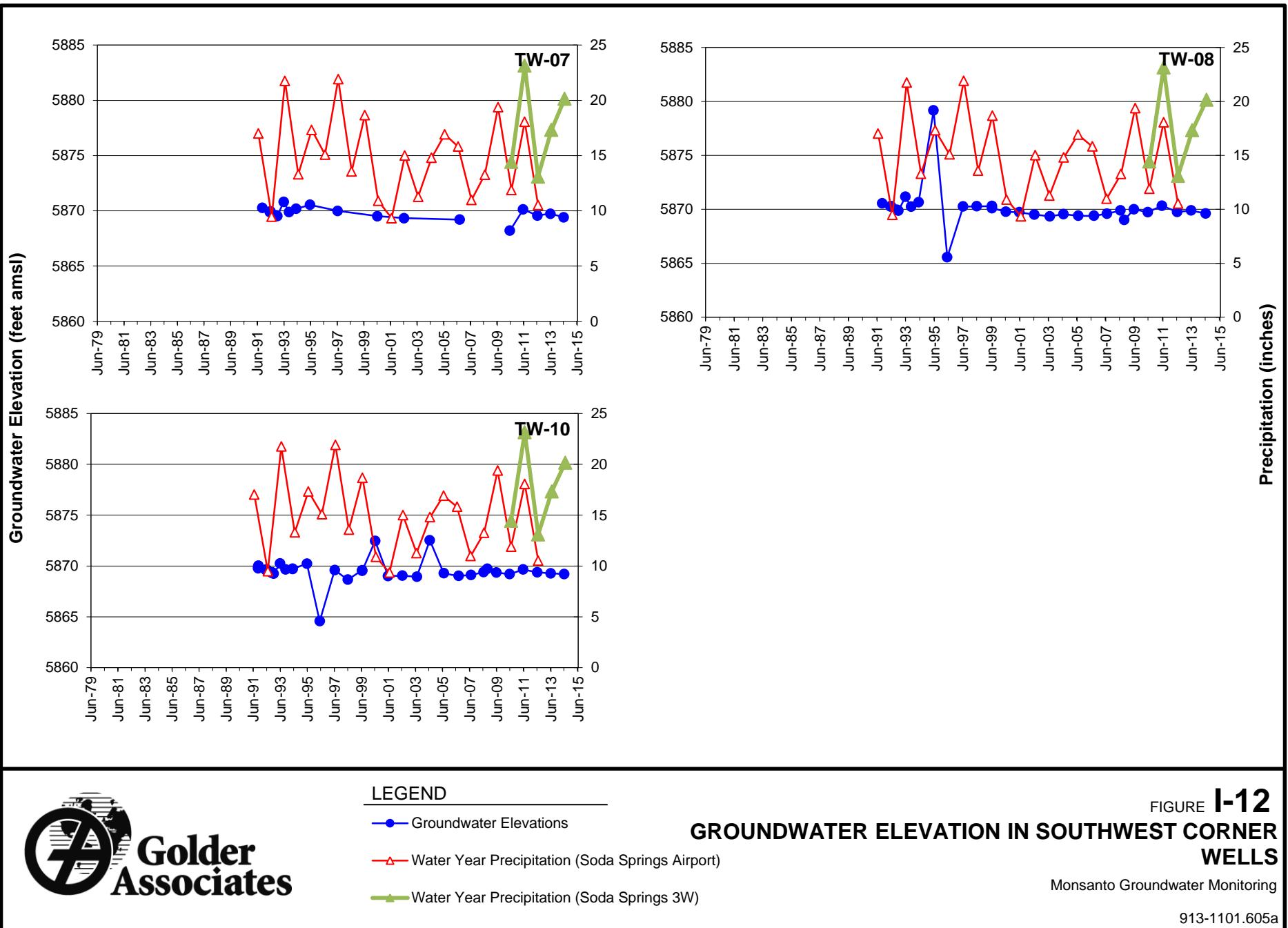
FIGURE I-10

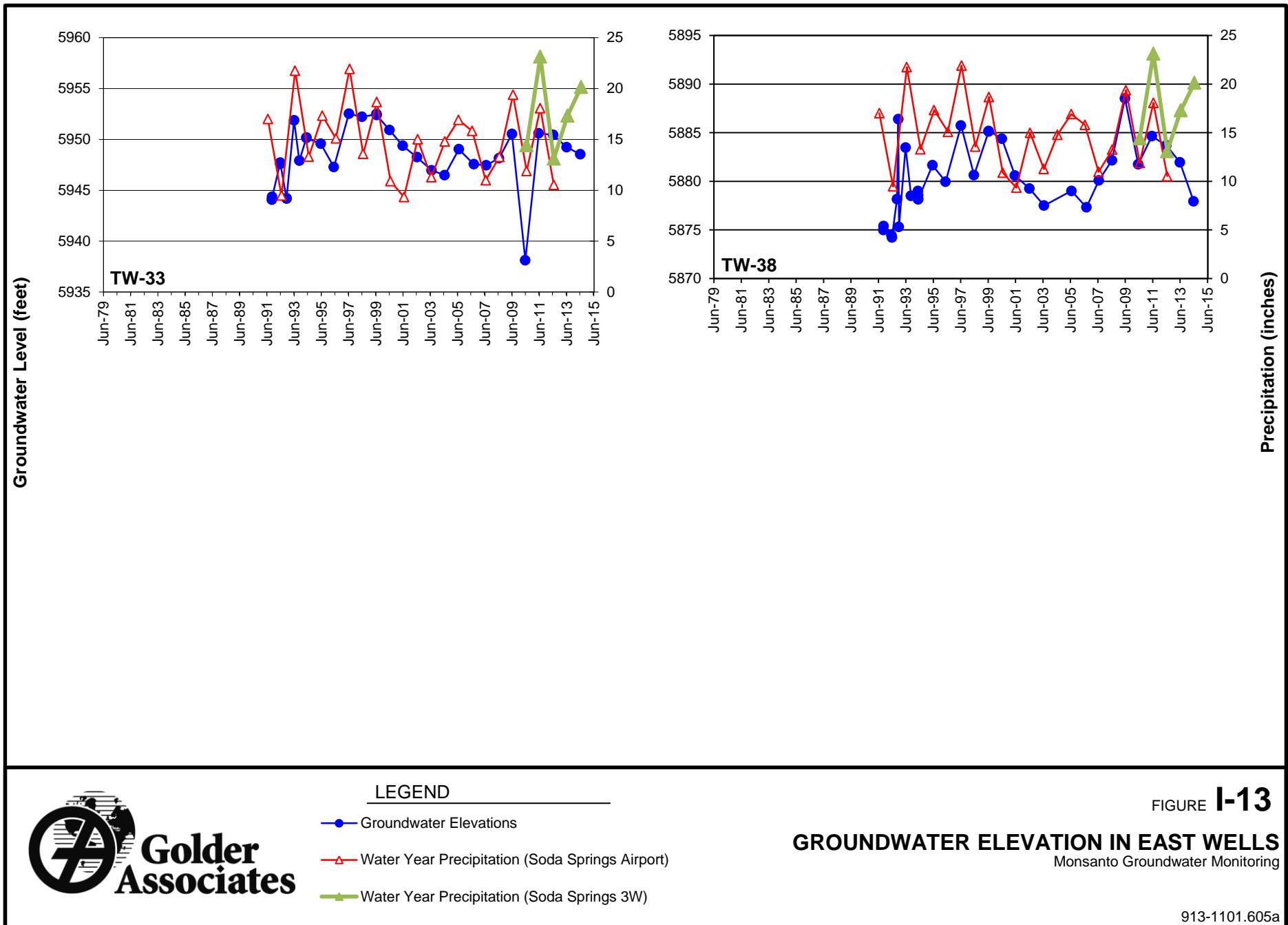
GROUNDWATER ELEVATION IN BACKGROUND WELLS

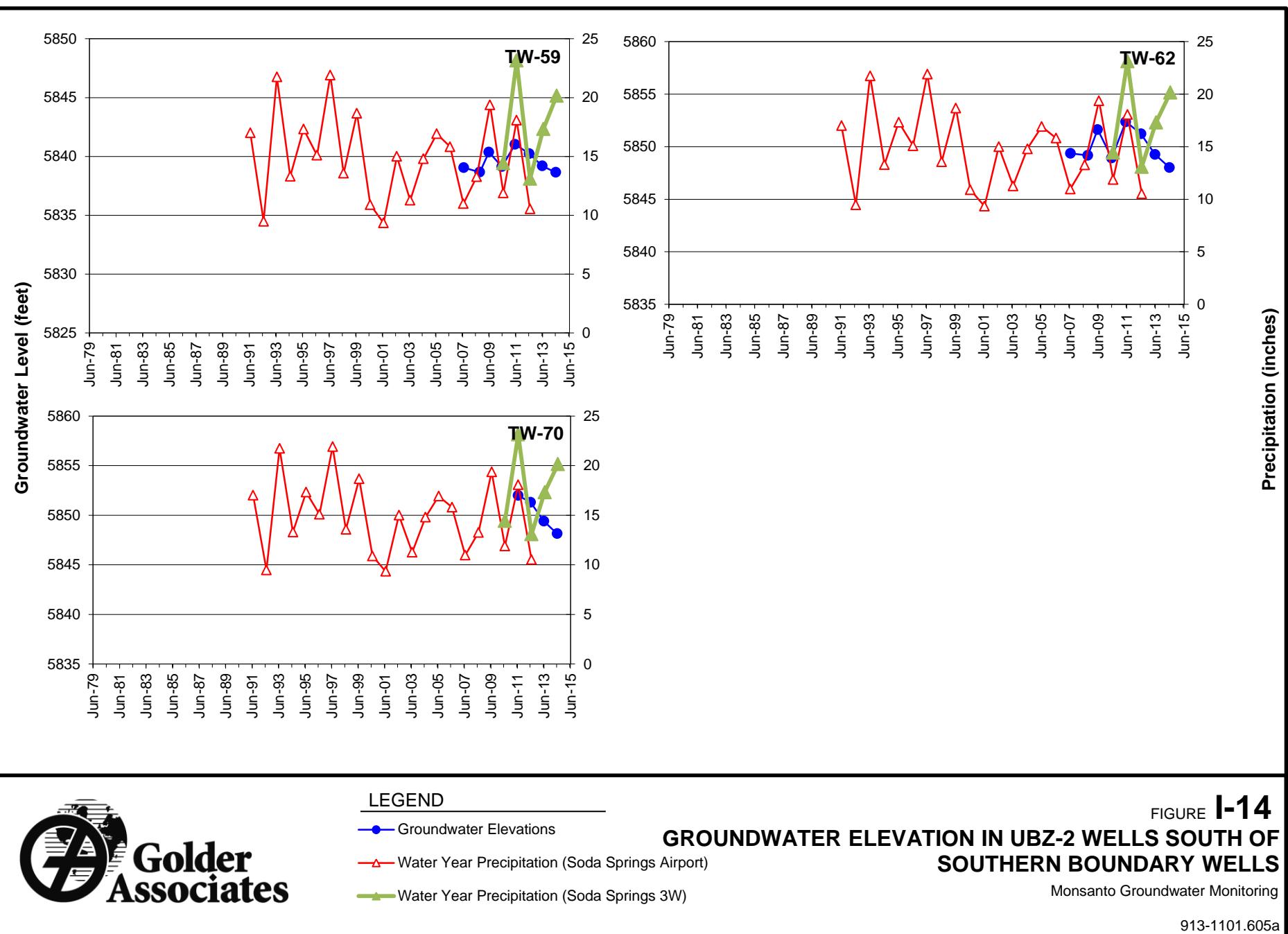
Monsanto Groundwater Monitoring

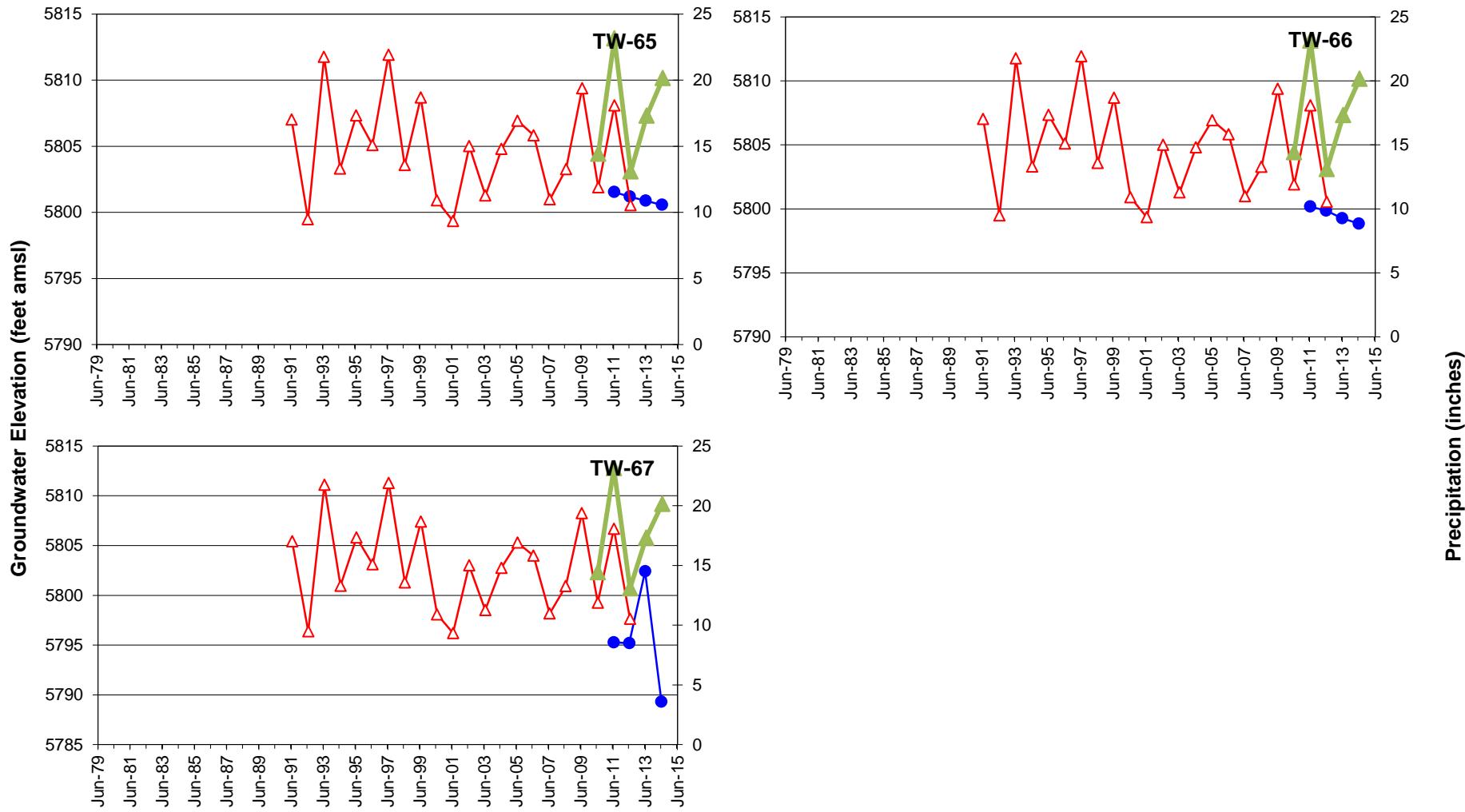
913-1101.605a











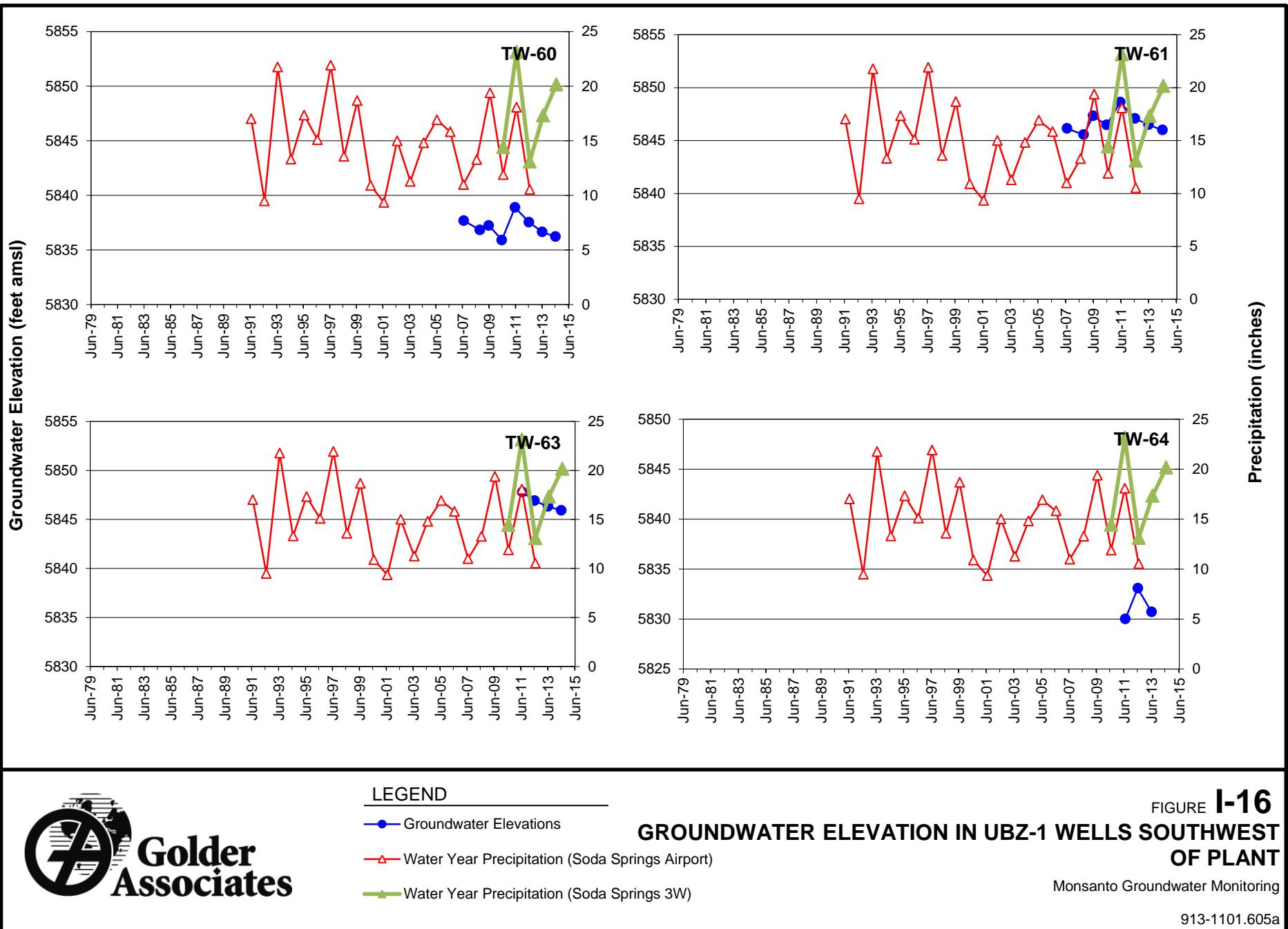
LEGEND

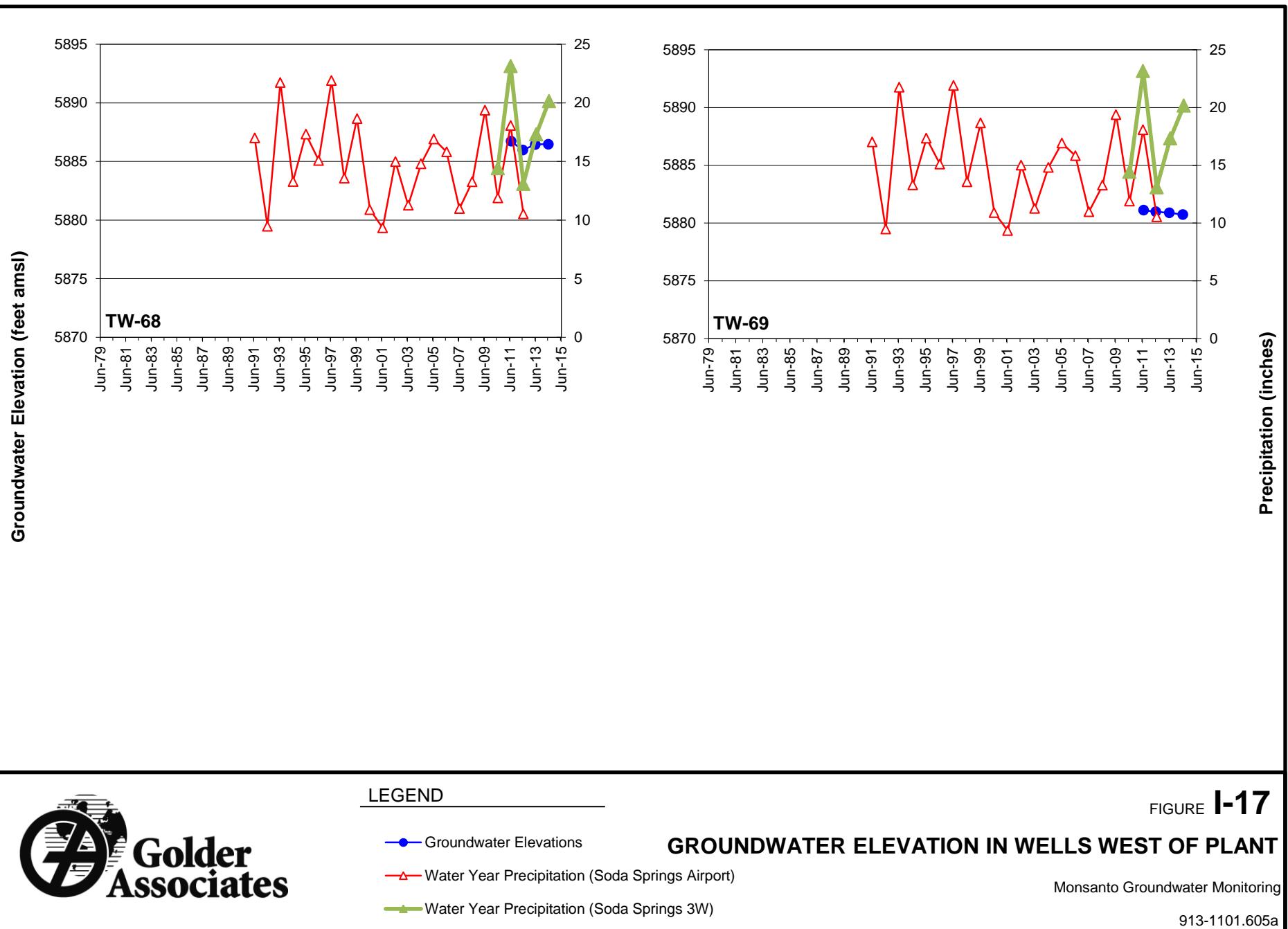
- Groundwater Elevations
- ▲— Water Year Precipitation (Soda Springs Airport)
- Water Year Precipitation (Soda Springs 3W)

FIGURE I-15
GROUNDWATER ELEVATION IN UBZ-2 WELLS AT PROPERTY LINE

Monsanto Groundwater Monitoring

913-1101.605a





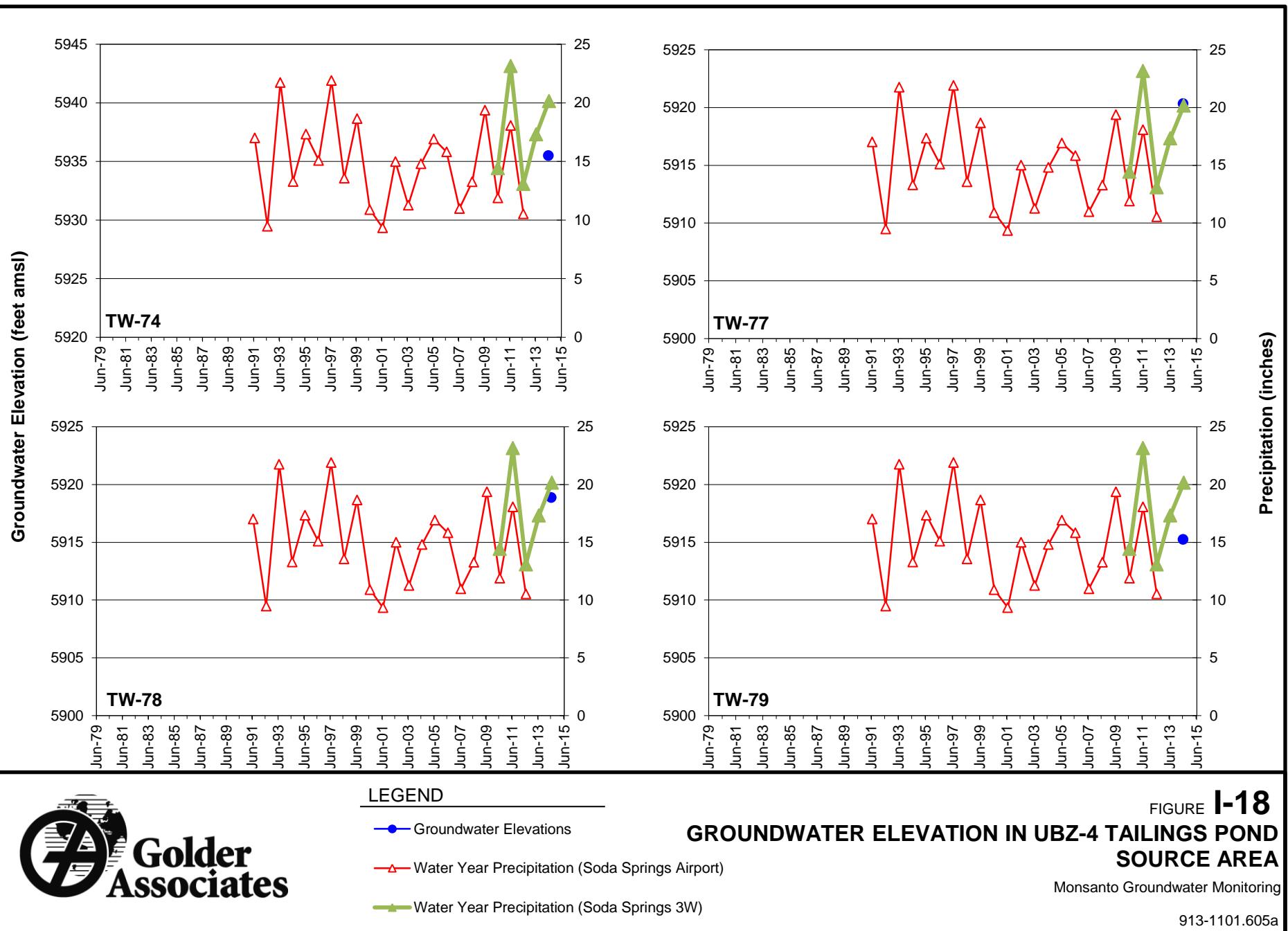


FIGURE I-18
GROUNDWATER ELEVATION IN UBZ-4 TAILINGS POND SOURCE AREA

Monsanto Groundwater Monitoring

913-1101.605a

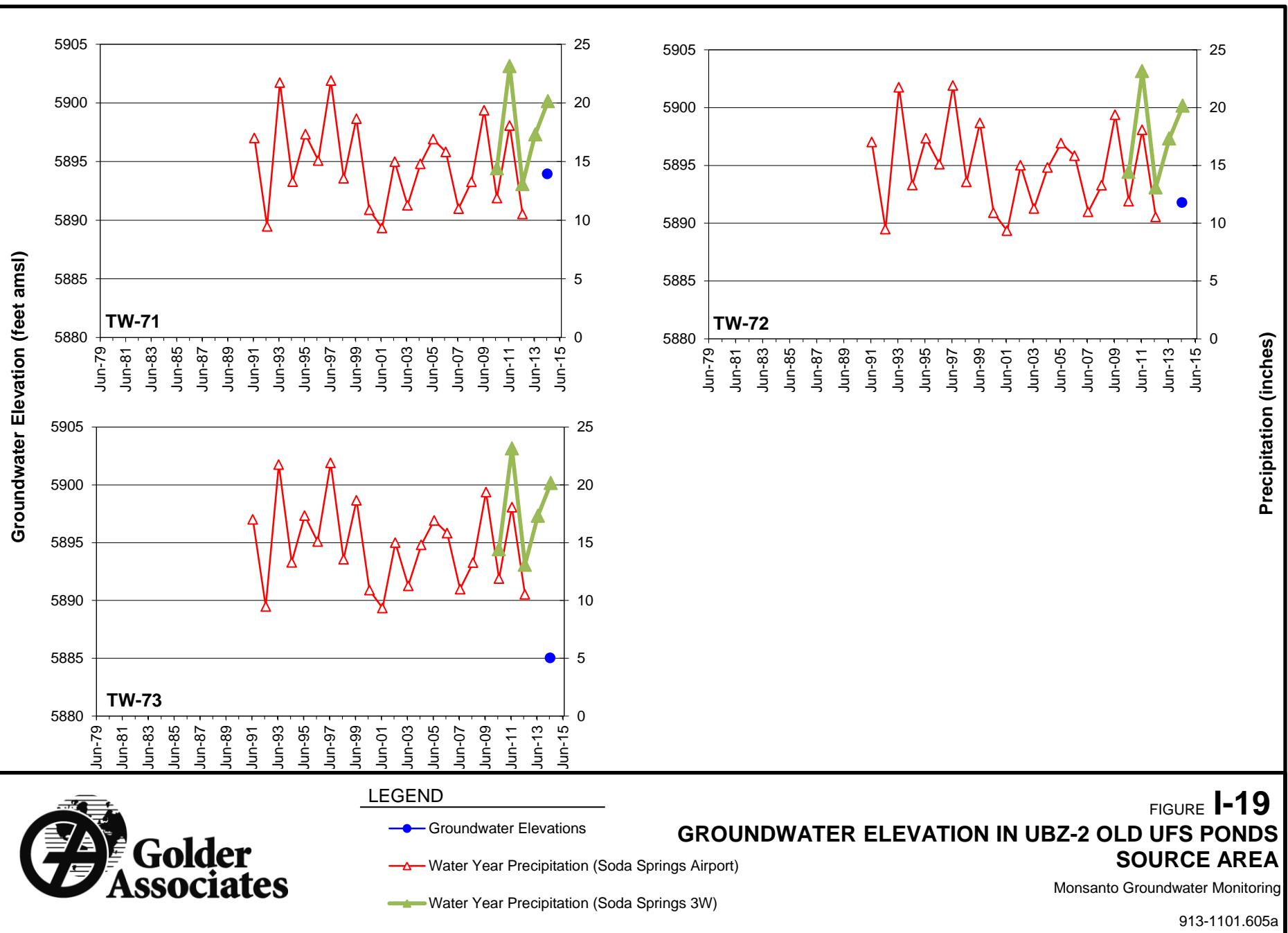
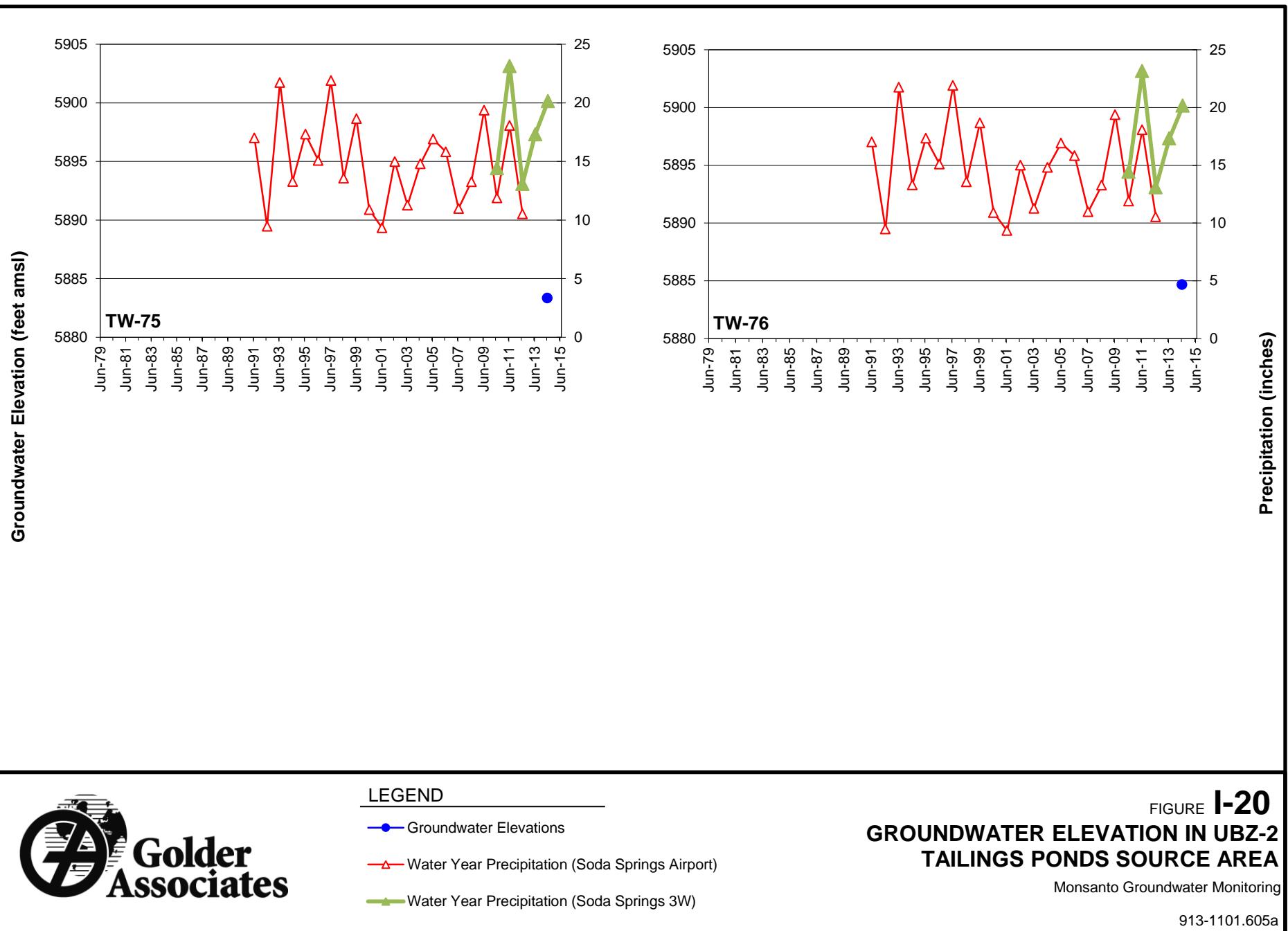
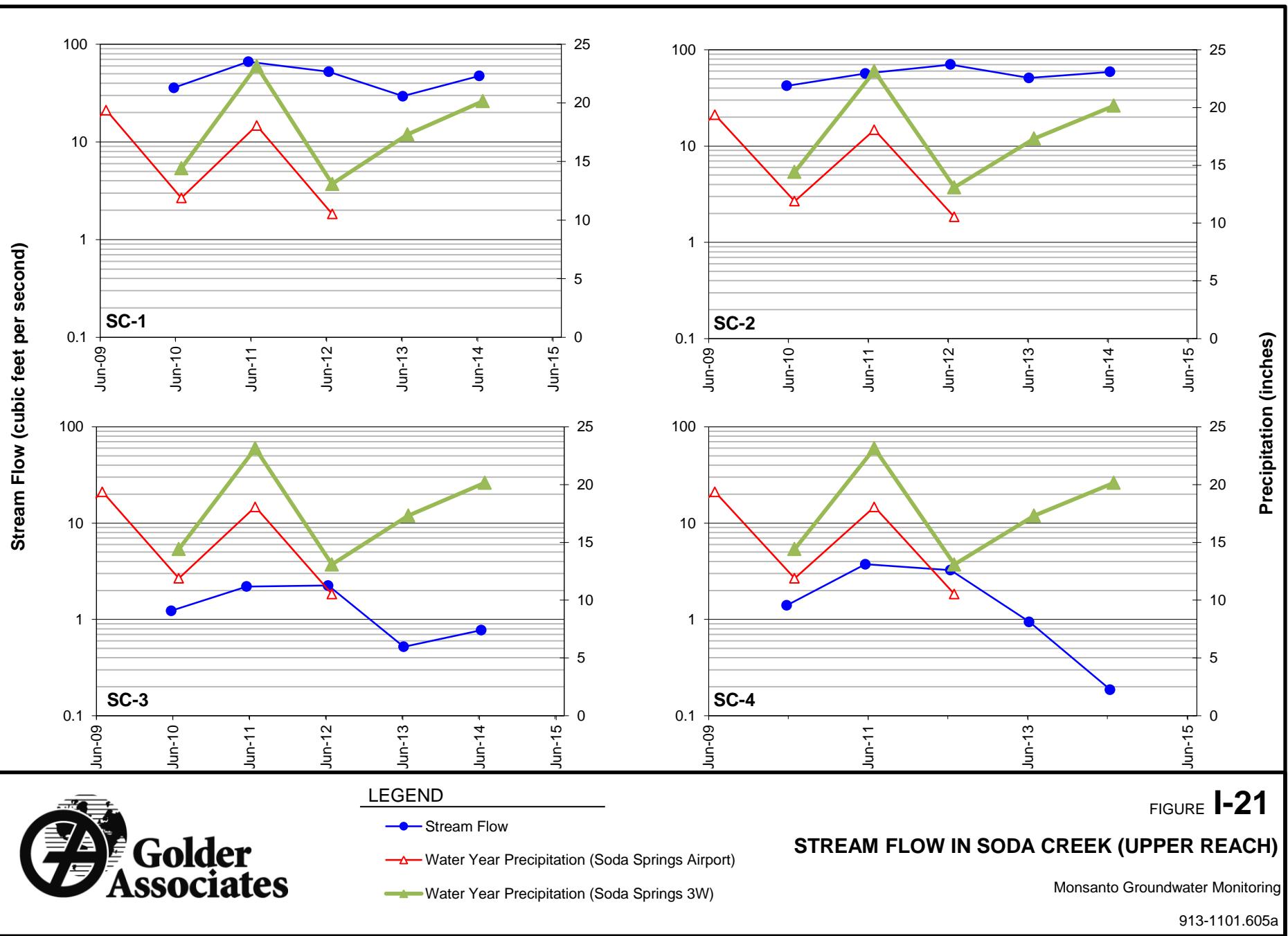


FIGURE I-19
GROUNDWATER ELEVATION IN UBZ-2 OLD UFS PONDS SOURCE AREA

Monsanto Groundwater Monitoring

913-1101.605a





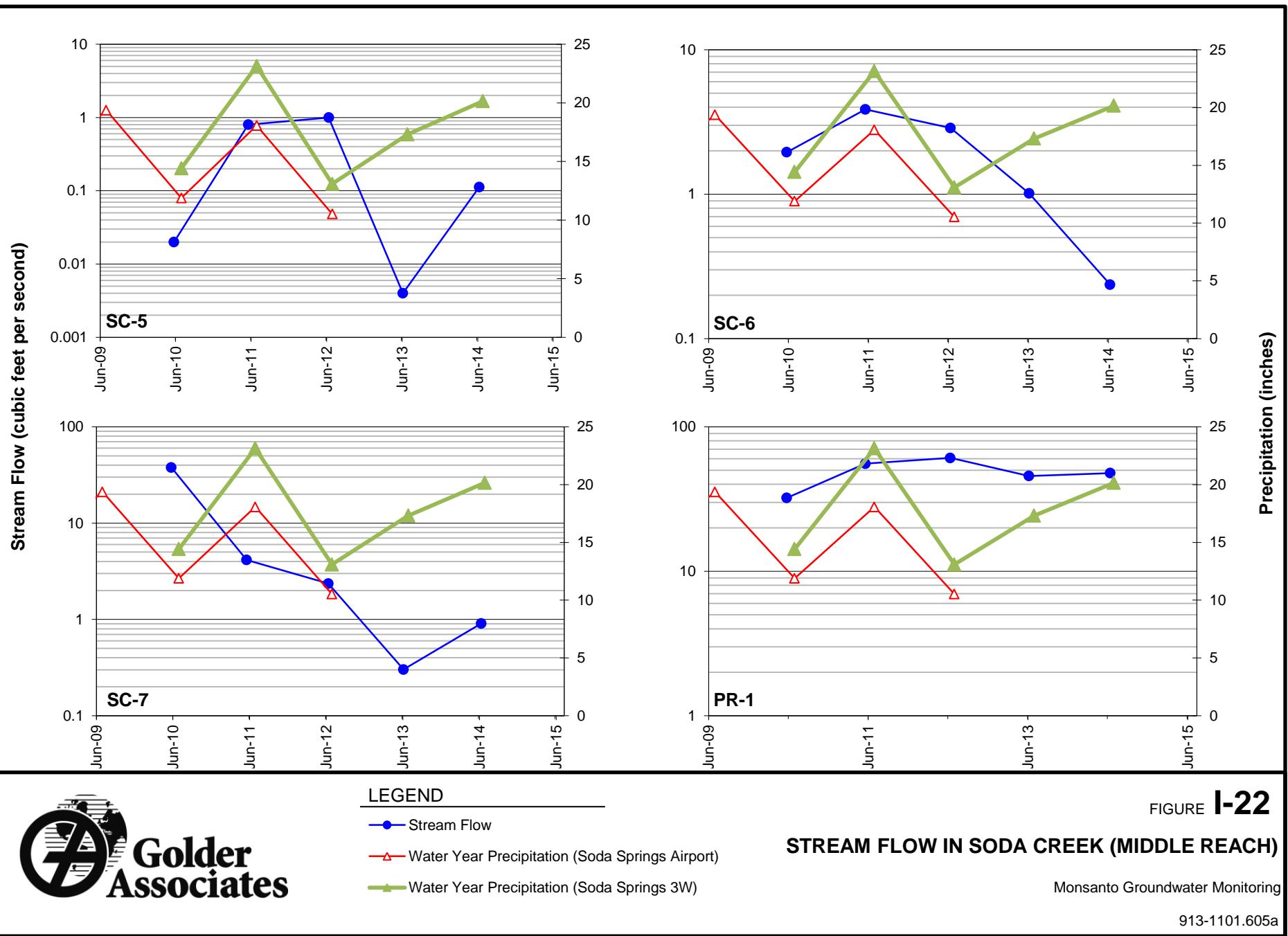
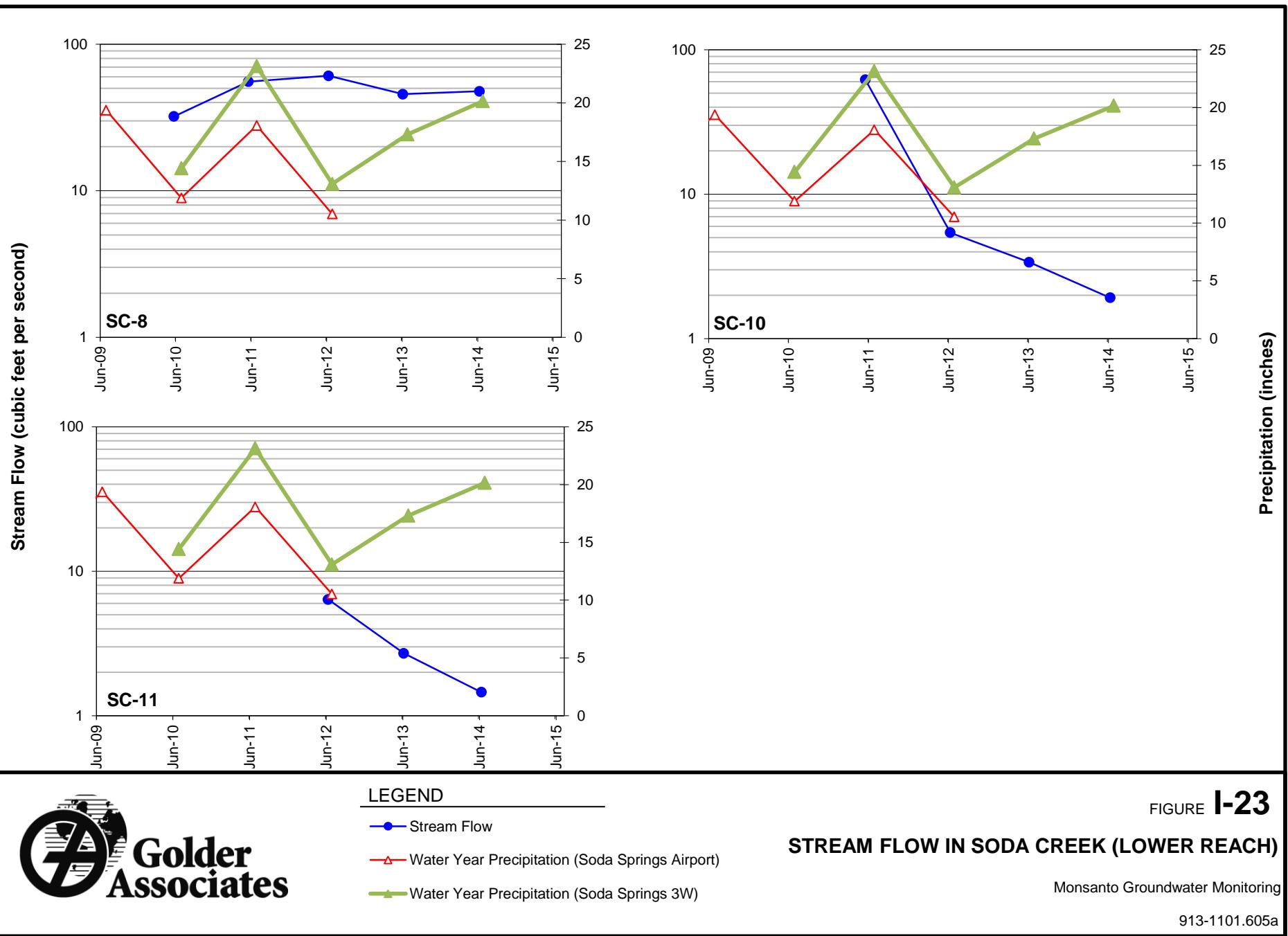


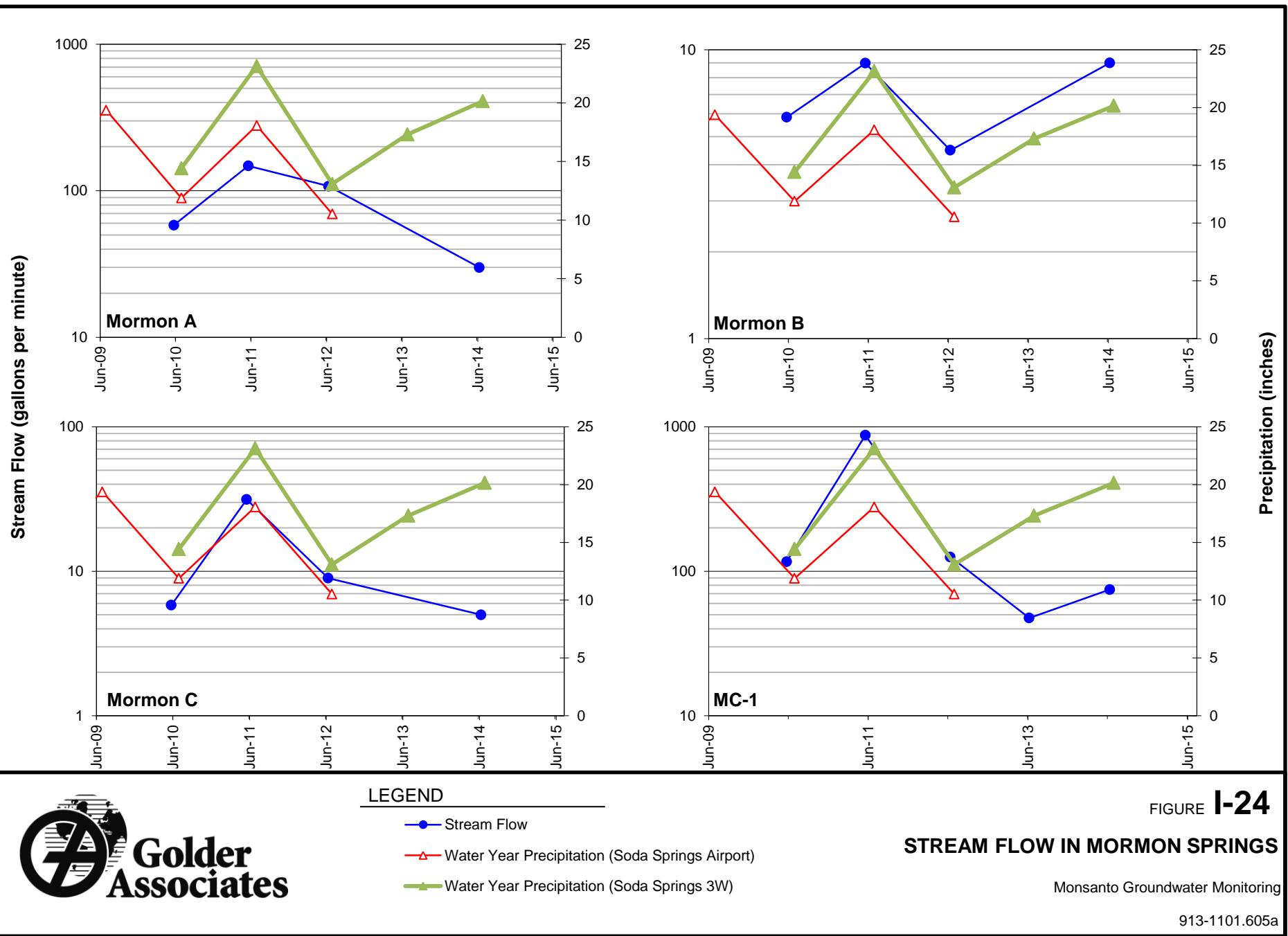
FIGURE I-22

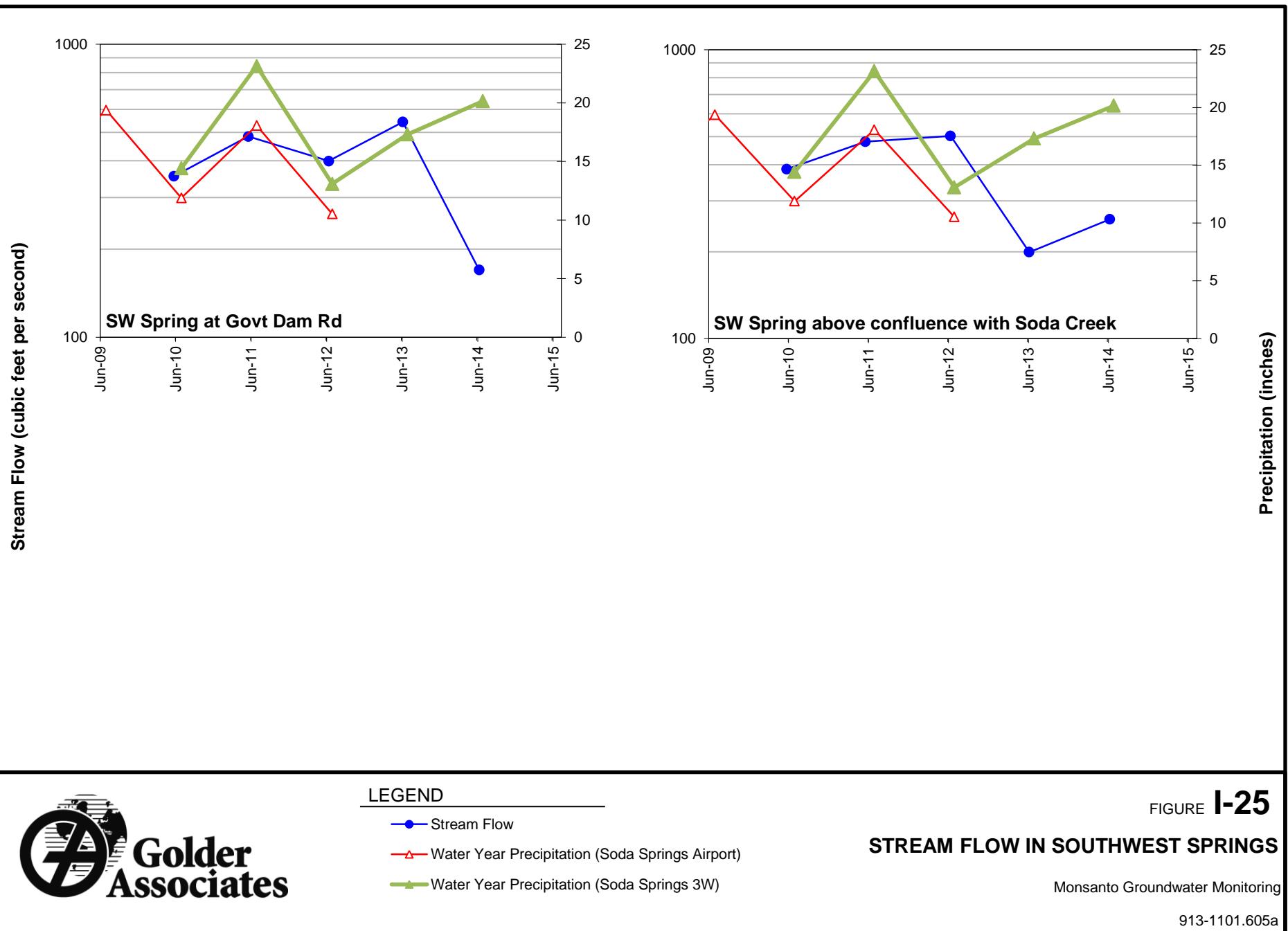
STREAM FLOW IN SODA CREEK (MIDDLE REACH)

Monsanto Groundwater Monitoring

913-1101.605a







APPENDIX J
DATA VALIDATION SUMMARY FOR 2014 WATER SAMPLING,
MONSANTO SODA SPRINGS PLANT

Date: March 6, 2015**Project No.:** 913-1101-004.001.IF**To:** Project Files**Company:****From:** Tom Stapp, Senior Project Chemist**cc:** Michael Klisch and David Banton**RE:** **DATA VALIDATION SUMMARY FOR 2014 ANNUAL GROUNDWATER AND SURFACE WATER QUALITY SAMPLING, MONSANTO SODA SPRINGS PLANT**

Groundwater and surface water quality samples were collected at the Monsanto Soda Springs Plant from June 3 to 14, 2014. One hundred and nine water quality samples were collected from 92 locations (including 10 field duplicate samples, 7 field split samples, and 2 blanks) during the 2014 sampling period.

The groundwater and surface water quality samples were shipped under chain-of-custody to SVL Analytical in Kellogg, Idaho (SVL; primary laboratory) for analysis. Split samples were collected and sent for analysis at IAS EnviroChem (IAS) in Pocatello, Idaho.

1.0 INTRODUCTION

This memorandum presents the results of data validation on Sample Delivery Groups (SDGs): W4F0185, W4F0187, W4F0188, W4F0190, W4F0192, W4F0192, W4F0193, W4F0343, W4F0345, W4F0346, W4F0347, W4F0348, W4F0349, and W4F0350 prepared by SVL in July 2014 and SDG I1406143 prepared by IAS. A complete summary of sample identifications, locations and sample collection dates is in Table J-5.0. Data qualifiers added to select analytes for select samples are summarized in Table J-5.1. Table J-5.2 provides the analytes and magnitude of detections found in Field Blanks associated with select sample dates and locations. Table J-5.3 provides the Analytical Holding Time Summaries for each analyte or analyte group, and Table J-5.4 provides precision calculations for Field Duplicate collection locations. Finally, Table J-5.5 provides analytical precision calculations for samples split between the two laboratories, IAS and SVL.

Analytical methodology utilized by SVL included the following:

- US Environmental Protection Agency (EPA) Method 6010 B: Ion Coupled Plasma Metals – Atomic Emission Spectrometry
- SM 2320 B: Alkalinity (including Bicarbonate and Carbonate)
- EPA 300.0: Anions (including Chloride [Cl⁻], Fluoride [F⁻], and Sulfate [SO₄²⁻])
- EPA 350.1: Ammonia as N (NH₃)
- EPA 353.2: Nitrate/Nitrite as N (NO₃/NO₂)
- EPA 6020: Selenium

030615tms1_appndx j_dv report_2014.docx



- SM 2540 C: Total Dissolved Solids (TDS)
- SM 4500 P-E: Total Phosphorus (TP)
- SM 2540 D: Total Suspended Solids (TSS)
- SM 5310 B: Total Organic Carbon (TOC)

Analytical methodology utilized by IAS included the following:

- USEPA Method 200.8: Ion Coupled Plasma Metals – Mass Spectrometry
- SM 2320 B: Alkalinity
- EPA 300.0: Anions (including Nitrate + Nitrite [NO₃/NO₂], Chloride [Cl⁻], Fluoride [F⁻], and Sulfate [SO₄])
- SM 4500 NH₃ G: Ammonia (NH₃)
- EPA 365.3: Total Phosphorus (TP)
- SM 2540 C: Total Dissolved Solids (TDS)

Data validation was conducted in accordance with the USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Superfund Data Review (EPA 2013), the Monsanto Quality Assurance Project Plan (QAPP) (Golder 2011), and applicable analytical methods. The data review process provides information on analytical limitations of the data based on specific quality control (QC) criteria outlined in the referenced documents. Sections 2 through 9 of this memorandum describe the QC criteria and the status of acceptability for each set of criteria. Qualification of results is indicated in the Section header as "Qualification Applied" (i.e., qualifiers were applied to selected sample results), or "Acceptable" (there were no qualifiers applied to the referenced sample results). Supporting information is provided in Attachments 1 through 4 as indicated:

- Attachment 1: Glossary of Data Reporting Qualifiers
- Attachment 2: Annotated Laboratory Reports
- Attachment 3: Laboratory Narrative and Chain-of-Custody Documentation
- Attachment 4: Supporting Data Validation Review Forms

2.0 SAMPLE HANDLING AND CUSTODY REQUIREMENTS

Custody of samples being sent off site for analysis were controlled and documented in accordance with Golder Associates Inc. (Golder) technical procedure TP-1.2-23, "Chain-of-Custody" (Golder 1995a). The unique sample identification numbers were recorded on the Chain-of-Custody forms found in Attachment 3.

2.1 General Chemistry Parameters – Qualification Applied

A summary of qualifications applied are provided in Table J-5.1. Qualifier definitions are provided in Attachment 1, and qualifiers added to applicable sample results are provided on the Annotated Laboratory Reports (Attachment 2).

2.1.1 Temperature – All Associated Sample Results are Acceptable

Sample custody was maintained throughout sample collection, transport, and laboratory receipt. All samples were received at 4 ± 2 degrees Celsius (C).

Transport cooler temperatures were measured with an infra-red instrument and recorded at the laboratory upon receipt.

2.1.2 Preservation – All Associated Sample Results are Acceptable

Samples were collected in pre-preserved bottles or preserved in the field with vials of acid provided by the laboratory and designated for the appropriate analysis (e.g. sulfuric acid added to pH<2 for nitrate and nitrate as N). Samples were checked for preservation by SVL just prior to preparation and analysis or upon receipt (IAS checked preservations upon receipt). All samples that required preservation were preserved to pH < 2.

2.2 Metals – All Associated Sample Results are Acceptable

Sample custody was maintained throughout sample collection, transport, and laboratory receipt. All samples were received at 4 ± 2 degrees C.

The EPA guidance document ‘Low Stress Purging and Sampling Procedure for the Collection of Ground Water Samples from Monitoring Wells’ (EPA 1996) states “Metal samples, after acidification to a pH <2 do not need to be cooled.” All sample bottles prepared for metal analysis were properly preserved, in the field, with nitric acid according to chain of custody and sample receipt records.

3.0 HOLDING TIMES

Holding times are evaluated to determine the acceptable and cumulative period of time for sample shipment, storage, and preparation before analysis is performed. The objective is to ascertain the validity of analytical results based on the holding time of the sample from the time of collection to the time of analysis. Table J-5.3 provides a summary of holding time data for each analysis performed for each SDG.

3.1 General Chemistry Parameters – Qualification Applied

All analyses were extracted and performed within the recommended maximum holding time, with the exception of:

- Samples 14041, 14061, 14068, and 14070, in SDG I1406143 (IAS) were analyzed for TDS on Day 10. Therefore, the analyses were performed after the recommended 7 day holding period and are qualified as estimated “J”.
- Samples 14041, 14061, 14068, and 14070 were analyzed for nitrate/nitrite on Day 10; sample 14094 was analyzed on Day 6; and sample 14117 was analyzed on Day 5 in SDG I1406143 (IAS). Therefore, the analyses were performed after the recommended 2 day holding period and are qualified as estimated “J”.

Table J-5.0 provides a cross reference for sample numbers to location names, and a summary of qualifiers applied are provided in Table J-5.1. Qualifiers are added to applicable sample results in the Annotated Laboratory Reports (Attachment 2), and Data Validation Summary Checklists (Attachment 4) provide narrative on the qualifier applied.

3.2 Metals – All Associated Sample Results are Acceptable

All analyses were extracted and performed within the recommended maximum holding time.

4.0 CALIBRATION/INSTRUMENT PERFORMANCE MONITORING

Compliance requirements for satisfactory instrument calibration and performance monitoring were evaluated (EPA 2007a and 2007b). Initial calibration demonstrates that the method used is capable of acceptable quantitative and qualitative performance before proceeding with QC and sample analysis. Continuing calibration demonstrates that the method is capable of performance on a continuing basis during and including sample and QC analyses. The required procedures, frequency, and performance were evaluated.

4.1 General Chemistry – All Associated Sample Results are Acceptable

4.1.1 Performance and Calibration

Method performance and calibration criteria were met. Initial calibration verification (ICV) and continuing calibration verifications (CCVs) were performed demonstrating acceptable performance.

4.2 Metals – Qualification Applied

4.2.1 Performance and Calibration

Method performance and calibration criteria were met. ICV and CCVs were performed demonstrating acceptable performance.

4.2.2 Internal Standards

Internal standards are analyzed to determine the existence and magnitude of instrument drift and physical interferences. Internal standard performance criteria were met except for total selenium for sample 14097 in SDG W4F0346. The sample was qualified as estimated ("J") for low recovery on the internal standard.

5.0 BLANKS

The assessment of blank analysis results is to determine the existence and magnitude of contamination resulting from laboratory activities. In addition, the evaluation of field blanks is assessed to monitor field related activities and is discussed in Section 8.

5.1 General Chemistry – All Associated Sample Results are Acceptable

Method blanks were analyzed at the required frequency in each SDG and were target analyte-free. Therefore, the method blank stands as an indicator that the associated samples contained in the analytical batch are also unaffected by contamination from laboratory preparation procedures.

5.2 Metals – Qualification Applied

Method blanks (preparation blanks) and continuing calibration blanks (CCBs) were analyzed at the required frequency in each SDG and were target analyte-free, with the exception of total cadmium CCBs associated with SDG WW4F0345. Total cadmium in samples 14105, 14107, 14108, and 14109 were qualified as estimated with high bias ("J+") for detected values less than 10 times the contaminant result.

Table J-5.1 provides a summary of samples and analytes affected by blank contaminants. Qualification of these results deviates slightly from data validation guidelines. The guidelines suggest raising a detected amount in a sample between the method detection limit (MDL) and the reporting limit (RL), to the RL with a non-detect qualifier (U) when associated with analyte detections in initial or continuing calibration blanks. Alternately, professional judgment is allowed to apply an estimated qualifier with a high bias (J+) when analyte detections are associated with preparation blanks and CCBs. Additionally, samples are qualified as estimated with a low bias (J-) when associated with 'negative value' preparation blanks and CCBs. This allows a blank bias to show for analytes present at trace or up to ten times the blank value, for the affected sample. The "J+" (or J-) qualifier for Monsanto samples was applied in cases where the result was greater than the RL but less than 10X the absolute value of the preparation blank or CCB contamination in each case specified. A "U" qualifier was applied in cases where a result was greater than the MDL, but less than the RL associated with preparation blank or CCB contamination. A not detected – estimated ("UJ") qualifier was applied in cases where a result was greater than the MDL, but less than the RL associated with a 'negative value' preparation blank contamination.

Table J-5.0 provides a sample number cross referenced to location names, and a summary of qualifications applied are provided in Table J-5.1. Qualifiers are added to applicable sample results in the Annotated Laboratory Reports (Attachment 2), and Data Validation Summary Checklists (Attachment 4) provide narrative on the qualifier applied.

6.0 SYSTEM MONITORING

System monitoring serves as a monitor for specific portions of the overall performance of the analytical method. System monitoring includes instrument checks, sample batch checks, and individual sample performance checks. Data for laboratory control samples (LCS) or standard reference materials (SRM) are provided in order to evaluate the accuracy and performance of the analytical method. Performance criteria ensure that instrument sensitivity and responses are stable throughout the analysis.

For metal analytes, an ICP Serial Dilution of select samples is performed to determine whether or not significant physical or chemical interferences exist due to sample matrix.

6.1 General Chemistry – Associated Sample Results are Acceptable

6.1.1 Laboratory Control Sample or Standard Reference Material

LCS or SRM samples were analyzed associated with each SDG. Goals for recovery of LCS or SRM samples were met. Therefore, general chemistry analytes exhibit stable instrument response during the period of batch analysis, and sample results are deemed acceptable for accuracy and precision associated with each SDG.

6.2 Metals – Qualification Applied

6.2.1 Laboratory Control Sample

LCS samples were analyzed associated with each SDG. Goals for recovery of LCS samples were met. Therefore, metal analytes exhibit stable instrument response during the period of batch analysis, and sample results are deemed acceptable for accuracy and precision associated with each SDG.

6.2.2 Serial Dilution

A Serial Dilution was performed for each SDG with the exception of the IAS data package, associated with the ICP-MS (6020C) selenium analyses. Goals for acceptable percent difference (%D) of the serial dilutions were met with the exception of:

- SDG W4F0343: Total and dissolved selenium for samples 14112, 14113, 14114, 14115, 14116, and 14118.
- SDG W4F0345: Total selenium for samples 14105, 14106, 14107, 14108, 14109, 14110, and 14111.

The Serial Dilution %D was out of control high and results were greater than 50 times the method detection limit (MDL). The selenium samples selected for serial dilution in these SDGs were qualified as estimated (J/UJ) and could have significant physical or chemical interferences due to sample matrix.

Qualifier definitions are provided in Attachment 1. Table J-5.0 provides a sample number cross referenced to location names, and a summary of qualifications applied are provided in Table J-5.1. Qualifiers are added to applicable sample results in the Annotated Laboratory Reports (Attachment 2), and Data Validation Summary Checklists (Attachment 4) provide narrative on the qualifier applied.

7.0 MATRIX SPIKE AND DUPLICATE ANALYSES

The spiked sample analysis is designed to provide information about the effect of each sample matrix on the sample preparation procedures and the measurement methodology. Non-homogeneous samples can impact the apparent method recovery. Aqueous samples are generally homogeneous and soil samples

are generally homogeneous within a factor of two or three. The data validator has assumed samples selected for spiking to be of a homogeneous nature, however similarity of matrix from sample to sample could be highly variable. If out-of-limit conditions exist for a spiked sample, associated samples have not been summarily qualified. Therefore, the scope of influence on associated samples should be considered.

7.1 General Chemistry – Qualification Applied

7.1.1 Precision and Accuracy

Matrix spike (MS) analyses were performed on samples associated with chloride, fluoride, sulfate, ammonia, nitrate, and phosphorus analyses. Goals for precision and accuracy were met in each SDG with the exception of:

- SDG W4F0185: Nitrate/Nitrite as N associated with sample 14052 was qualified as estimated with a high bias ("J+") due to high recovery.
- SDG W4F0187: Nitrate/Nitrite as N associated with sample 14047 was qualified as estimated ("J") due to low recovery.
- SDG W4F0193: Ammonia for sample 14032 was qualified as estimated with a low bias ("J-") due to low recovery.
- SDG W4F0193: Fluoride associated with sample 14032 was qualified as estimated with a high bias ("J+") due to high recovery.
- SDG W4F0343: Nitrate/Nitrite as N associated with sample 14116 was qualified as estimated with a high bias ("J+") due to high recovery.
- SDG W4F0343: Chloride associated with samples 14112, 14113, 14114, 14115, 14116, and 14118 were qualified as estimated ("J" or "UJ") due to poor lab duplicate RPD.

7.1.2 Exceptions and Notes

Analytical methodology and data validation guidelines for inorganic analytes state that qualification of results 'does not apply' when the sample result for the MS contains more than four times the level of the spiking solution. The MS performed on the general chemistry analytes were spiked at appropriate levels, however selected samples exhibited high analyte levels and the condition of "more than four times the level of the spiking solution" was observed requiring no qualification.

Qualifier definitions are provided in Attachment 1. Table J-5.0 provides a sample number cross referenced to location names, and a summary of qualifications applied are provided in Table J-5.1. Qualifiers are added to applicable sample results in the Annotated Laboratory Reports (Attachment 2), and Data Validation Summary Checklists (Attachment 4) provide narrative on the qualifier applied.

7.2 Metals – Qualification Applied

7.2.1 Precision and Accuracy

Matrix spike (MS) analyses were performed on selected samples in the indicated SDGs for all associated analytes. Goals for precision and accuracy were met in each SDG with the exception of:

- SDG W4F0190: Dissolved selenium associated with samples 14049 and 14050 were qualified as estimated ("J") due to high recovery.
- SDG W4F0347: Total selenium associated with sample 14076 was qualified as estimate ("J") due to poor recovery, and poor duplicate RPD recovery.

A summary of qualifications is provided in Table J-5.1, and qualifiers added to applicable samples are provided on the Annotated Laboratory Reports (Attachment 3), and qualification descriptions are provided on the Data Validation Summary Checklists.

8.0 FIELD QUALITY CONTROL SAMPLES

Blind field duplicates and field blanks were collected to give an indication of overall field sampling precision and overall performance. The field blank sample was analyzed to determine the existence and magnitude of contamination resulting from field activities. Field split samples were collected and analyzed for identical parameters but at different laboratories. The field duplicate and field split sample results may have more variability than laboratory duplicates, which measures only analytical or method precision. Therefore, relative percent differences between field duplicates and field splits are noted for review, but results for these QC samples and the sample results associated with them are typically not qualified.

8.1 General Chemistry and Metals – Associated Sample Results are Acceptable

8.1.1 Field Duplicate– Advisory Conditions Noted

Sample locations Southwest Spring at Government Dam Road, non-contact cooling water, SC-08 Soda at Octagon Park, TW-11, TW-35, TW-38, TW-33, TW-62, and TW-70 were identified for field duplicate analysis. Table J-5.0 lists the sample locations and field duplicate pair sample identification numbers. Table J-5.4 provides a field duplicate comparison with relative percent difference (RPD) calculations for each analyte. RPDs were within the +/- 20% limit for all field duplicate pair analyses with the following exceptions:

- SDGs W4F0193/W4F0185: For the samples collected at TW-35, ammonia and phosphorus exceeds the RPD 20% limit, ranging from 33.7 to 93.7%.
- SDG W4F0192: For the samples collected at TW-62, phosphorus exceeds the RPD 20% limit, at 70.9%.
- SDG W4F0349: For the samples collected at SC-08 Soda at Octagon Park, total manganese exceeds the RPD 20% limit, at 27.8%.

Qualification for field duplicate pair results that are out of limit are not applied in Data Validation assessments according to National Functional Guidelines (EPA 2013). However, the project manager may comment on the level of acceptability for field duplicate performance, since variability can be a consequence of field handling, sample storage, or laboratory performance.

8.1.2 Field Blanks – Advisory Conditions Noted

Sample 14126 is identified as a deionized water field blank in SDG W4F0349, and sample 14037 is identified as a deionized water equipment blank for the temporary Grundfos sampling pump in SDG W4F0187. Trace analytes below the RL were detected in:

- 14136 for bicarbonate, total alkalinity, and sodium.
- 14037 for phosphorus and sodium. 14037 for zinc which was detected above the MDL but below the RL (3.4 micrograms per Liter [$\mu\text{g/L}$]).

The data does not show a significant contamination trend. Using data validation guidelines for blank contamination, the zinc contaminants would show bias to associated samples in the SDG group, causing associated sample results to be raised to the contaminant level and qualified as non-detect ("U" qualifier) or as estimated with a high bias ("J+"). The project manager may comment on the level of acceptability for field blank performance, since variability can be a consequence of field handling, sample storage, or laboratory performance. A summary of detections found is provided in Table J-5.2.

8.1.3 Field Split Comparison – Advisory Conditions Noted

Sample locations Mormon A Spring, SC-04 Soda Down, TW-12, TW-33, TW-54, TW-55, and TW-67 were selected for field split collection and analysis at separate certified laboratories. Representative media from each location was sent to SVL, in Kellogg, Idaho, and IAS, in Pocatello, Idaho. The samples were tested using identical methodology in most cases, however reporting limit differences were recorded. Table J-5.0 lists the sample locations and field split sample identification numbers. Table J-5.5 associated with IAS provides a field split comparison with RPD calculations for each analysis requested. RPDs were within the $\pm 20\%$ limits or the plus/minus RL for all field spilt analyses, with the exception of the following analytes:

- Ammonia in TW-12.
- Chloride, Fluoride, Nitrate/Nitrite as N, and Phosphorus in TW-55.
- Fluoride and Sulfate in TW-54.
- Nitrate/Nitrite as N in TW-67.
- Chloride, Nitrate/Nitrite as N, and Sulfate in Mormon A Spring.
- Fluoride in SC-04 Soda Down

Qualification for field split results that are out of limit are not applied in data validation assessments according to National Functional Guidelines (EPA 2013). However, the project manager may comment

on the level of acceptability for field split performance, since variability can be a consequence of field handling, sample storage, or laboratory performance.

9.0 OVERALL ASSESSMENT

Overall assessment was performed on the entire data package. Review of the data results was performed in conjunction with the governing plans. The governing plans encompass the National Functional Guidelines for Inorganic Superfund Data Review (EPA 2013), the Monsanto Quality Assurance Project Plan (QAPP) (Golder 2011), and the Sampling Plan (Golder 2012), and applicable analytical methods.

9.1 General Chemistry – All Associated Sample Results are Acceptable.

An assessment of the following criteria associated with general chemistry results was performed and the criteria were found to meet the guidelines of the governing plan with the exceptions noted.

9.1.1 *Detection Limits*

Detection limit goals as stated in the QAPP (Golder 2011) were met for all results. Selected sample analyte non-detects did not meet detection limit goals for other samples due to dilutions. RLs are reported at QAPP guidance limits for other associated sample results and no qualification has been applied.

9.1.2 *Target Analyte Identification and Quantitation*

All sample results were supported in the raw data with the exception of data provided by IAS, for which raw data was not provided. No action was taken since the purpose of the sample results from IAS was for field split comparisons.

9.1.3 *Completeness*

The data packages were complete for all requested analyses. A total of 109 samples were validated in the data packages with a total of 1,174 general chemistry determinations reported, all of which were deemed valid. This results in a completeness of 100%, which meets normal work plan objectives of 90%.

9.2 Metals – All Associated Sample Results are Acceptable

An assessment of the following criteria associated with metal results was performed and the criteria were found to meet the guidelines of the governing plan.

9.2.1 *Detection Limits*

Detection limit goals as stated in the QAPP (Golder 2011) were met. Detection limit goals for samples analyzed by IAS were met with the exception of select results where dilutions were required. Results are as reported and qualification is not applied.

Detection limit goals were met for all SVL results.

9.2.2 Target Analyte Identification and Quantitation

All sample results were supported in the raw data with the exception of data provided by IAS for which raw data was not provided. No action was taken since the purpose of the sample results from IAS was for field split comparisons.

9.2.3 Completeness

The data packages were complete for all requested analyses. A total of 109 samples were validated in the data packages for dissolved fraction and total recoverable fraction, with a total of 1,404 metal determinations reported (including hardness), all of which were deemed valid. This results in a completeness of 100%, which meets normal work plan objectives of 90%.

10.0 DATA VALIDATION AND USABILITY

Data were validated by Golder personnel, based on the applicable elements of the USEPA Functional Guidelines for Inorganic Superfund Data Review, USEPA Contract Laboratory Program (EPA 2013), Golder technical procedure TP-2-2-12 "Analytical Data Management" (Golder 1995b), applicable reference method requirements as appropriate, and the Quality Assurance Project Plan (Golder 2011).

Data generated in the field or by the subcontractor laboratory were reviewed. Original data was copied and retained in the project file. Working copies were reviewed by the Lead Analytical Chemist for validating/verifying analytical data and to provide reference to this report.

Validation/verification and data management activities were organized by analytical fraction (i.e. Metals, General Chemistry). All hard copy or electronic deliverable data were reviewed against chain-of-custody for verification of sample identification and analyses requested. Any incorrect data or discrepancies noted in the verification were resolved with project management and/or the data generator, and a record of the resolution was noted in the data validation report or checklists. Any corrections to the original data were noted in the checklists and corrected data sheets or electronic deliverables were issued if necessary. After the completion of data validation/verification any qualifiers or other comments noted in the validation/verification process assigned to the data are entered into the qualifier or comment section of the database as appropriate. The final database summary report is reviewed by appropriate personnel and added to the project file.

The analytical data resulting from analysis of surface and ground water quality monitoring in support of the Monsanto groundwater compliance monitoring are acceptable for their intended use with the exception of those deficiencies noted. Limitations and sources of existing data are stated and clearly identified where applicable. A validated data summary of individual qualifiers applied to select samples is included in Table J-5.1.

11.0 REFERENCES

- Environmental Protection Agency (EPA). 1996. Region 1. 'Low Stress (low flow) Purgung and Sampling Procedure for the Collection of Ground Water Samples from Monitoring Wells', SOP #GW0001, July 30.
- EPA, 2007a. USEPA SW-846, Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, Method 6010C, Final Update, February, 2007a.
- EPA, 2007b. USEPA SW-846, Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, Method 6020A, Final Update, February, 2007b.
- EPA. 2013. USEPA Contract Laboratory Program, National Functional Guidelines for Inorganic Superfund Data Review, EPA-540/ R-013-001, January.
- Golder Associates Inc.(Golder). 1995a. Golder Associates Inc., Technical Procedure TP-1.2-23, "Chain of Custody", Golder Associates Inc., Redmond, Washington.
- Golder. 1995b. Technical Procedure TP-2.2-12, "Analytical Data Management", Golder Associates Inc., Redmond, Washington.
- Golder. 2011. Quality Assurance Project Plan for Groundwater and Surface Water Sampling, Monsanto Soda Springs Facility, Soda Springs, Idaho; Submitted to Monsanto Company, June 9.
- Golder. 2012. Groundwater and Surface Water Sampling Work Plan, Monsanto Soda Springs Idaho Plant; Submitted to Monsanto Company, June 4.

List of Tables

- Table J-5.0 Sample Collection Summary June 2014
Table J-5.1 Data Qualification Summary
Table J-5.2 Field Blank Summary
Table J-5.3 Analytical Holding Time Summary
Table J-5.4 Field Duplicate Comparison Summary
Table J-5.5 Laboratory Split Comparison/ SVL Analytical and Analytical Resources

List of Attachments

- Attachment 1 Glossary of Data Reporting Qualifiers
Attachment 2 Annotated Laboratory Reports
Attachment 3 Laboratory Narrative and Chain-of-Custody Documentation
Attachment 4 Supporting Data Validation Review Forms

TABLES

Table J-5.0: Sample Collection Summary June 2014

Location	Sample ID	Sample Date	Sample Time	Notes
TW-20	14019	6/3/2014	13:15	
TW-34	14020	6/3/2014	15:25	
TW-39	14021	6/3/2014	16:05	
TW-35	14022	6/3/2014	16:30	
TW-35	14023	6/3/2014	16:40	Field Duplicate
TW-10	14024	6/3/2014	17:20	
TW-38	14025	6/4/2014	10:00	
TW-38	14026	6/4/2014	10:15	Field Duplicate
TW-58	14027	6/4/2014	12:00	
TW-22	14028	6/4/2014	15:00	
TW-24	14029	6/4/2014	15:15	
TW-07	14030	6/4/2014	18:00	
TW-61	14031	6/5/2014	9:00	
TW-60	14032	6/5/2014	10:10	
Harris	14033	6/5/2014	12:20	
TW-08	14034	6/5/2014	14:15	
TW-26	14035	6/5/2014	16:05	
PW-04	14036	6/5/2014	16:30	
Grundfos	14037	6/6/2014	8:00	Equip. Blank
TW-11	14038	6/6/2014	9:30	
TW-11	14039	6/6/2014	10:00	Field Duplicate
TW-12	14040	6/6/2014	10:15	
TW-12	14041	6/8/2014	10:15	Field Split Sample
TW-17	14042	6/6/2014	11:00	
TW-16	14043	6/6/2014	11:25	
TW-18	14044	6/6/2014	14:00	
TW-37	14045	6/6/2014	14:45	
TW-45	14046	6/6/2014	16:00	
TW-29	14047	6/6/2014	17:30	
TW-49	14048	6/6/2014	18:00	
TW-40	14049	6/7/2014	9:15	
TW-43	14050	6/7/2014	10:30	
TW-44	14051	6/7/2014	12:45	
TW-50	14052	6/7/2014	15:30	
TW-30	14053	6/7/2014	16:15	
TW-41	14054	6/7/2014	16:45	
SO2 Landfill North	14055	6/8/2014	9:25	
SO2 Landfill South	14056	6/8/2014	10:00	
TW-48	14057	6/8/2014	10:30	
TW-15	14058	6/8/2014	10:50	
TW-33	14059	6/8/2014	12:00	
TW-33	14060	6/8/2014	12:15	Field Duplicate
TW-33	14061	6/8/2014	12:00	Field Split Sample
TW-59	14062	6/8/2014	13:15	
TW-62	14063	6/8/2014	13:45	
TW-62	14064	6/8/2014	14:00	Field Duplicate
TW-70	14065	6/8/2014	14:15	
TW-70	14066	6/8/2014	14:30	Field Duplicate
TW-55	14067	6/8/2014	15:20	
TW-55	14068	6/8/2014	15:20	Field Split Sample
TW-54	14069	6/8/2014	16:05	
TW-54	14070	6/8/2014	16:05	Field Split Sample
TW-53	14071	6/8/2014	17:00	
TW-56	14072	6/9/2014	9:30	
TW-69	14073	6/9/2014	10:40	
TW-57	14074	6/10/2014	9:15	
TW-68	14075	6/10/2014	9:50	
TW-67	14076	6/10/2014	10:30	
TW-67	14077	6/10/2014	10:30	Field Split Sample
Big Spring	14078	6/10/2014	11:00	
TW-66	14079	6/10/2014	12:30	
TW-65	14080	6/10/2014	13:10	
TW-71	14081	6/10/2014	16:00	

Table J-5.0: Sample Collection Summary June 2014

Location	Sample ID	Sample Date	Sample Time	Notes
TW-77	14082	6/10/2014	17:40	
TW-79	14083	6/11/2014	8:30	
TW-78	14084	6/11/2014	10:55	
TW-72	14085	6/11/2014	11:50	
TW-73	14086	6/11/2014	12:10	
TW-76	14087	6/11/2014	13:30	
TW-75	14088	6/11/2014	14:30	
PW-03	14089	6/11/2014	15:00	
PW-02	14090	6/11/2014	15:20	
PW-01	14091	6/11/2014	16:00	
TW-74	14092	6/11/2014	17:00	
Mormon A Spring	14093	6/12/2014	8:40	
Mormon A Spring	14094	6/12/2014	8:40	Field Split Sample
Mormon B Spring	14095	6/12/2014	9:20	
Mormon C Spring	14096	6/12/2014	9:40	
MC-1 Mormon Creek	14097	6/12/2014	10:30	
SW Spring above the Confluence with Soda Creek	14098	6/12/2014	11:00	
SW Spring at Government Dam Road	14099	6/12/2014	12:30	
SW Spring at Government Dam Road	14100	6/12/2014	13:00	Field Duplicate
Marsh Spring	14101	6/12/2014	13:15	
Little Spring Creek Pond Down	14102	6/12/2014	13:45	
Little Spring Creek Pond Up	14103	6/12/2014	14:15	
Lewis	14104	6/12/2014	15:00	
Non-Contact Cooling Water Pond Inlet	14105	6/13/2014	10:00	
SC-01 Soda Up	14106	6/13/2014	10:30	
Non-Contact Cooling Water 1	14107	6/13/2014	12:00	
Non-Contact Cooling Water 2	14108	6/13/2014	12:15	Field Duplicate
Non-Contact Cooling Water 3	14109	6/13/2014	12:30	Field Duplicate
SC-02 Soda Weir	14110	6/13/2014	12:45	
SC-05 Soda Below Weir	14111	6/13/2014	12:50	
SC-03 Soda Mid	14112	6/13/2014	13:45	
PR-1 Power Return Canal	14113	6/13/2014	14:15	
SC-07 Soda Upstream Power Return	14114	6/13/2014	15:00	
SC-06 Soda at Property Line	14115	6/13/2014	15:30	
SC-04 Soda Down	14116	6/13/2014	16:00	
SC-04 Soda Down	14117	6/13/2014	16:00	Field Split Sample
Homestead Spring	14118	6/13/2014	16:30	
SC-11 Soda at Highway 30	14119	6/14/2014	8:30	
SC-10 Soda at RR Bridge	14120	6/14/2014	9:30	
SC-08 Soda at Octagon Park	14121	6/14/2014	10:00	
SC-08 Soda at Octagon Park	14122	6/14/2014	10:30	Field Duplicate
SC-09 Soda above Diversion	14123	6/14/2014	11:00	
City Park Spring	14124	6/14/2014	11:30	
Independent Drilling	14125	6/14/2014	12:00	
Blank Distilled Water	14126	6/14/2014	13:00	Blank
TW58	14126	6/4/2014	12:00	

Table J-5.1: Data Qualification Summary**DATE VALIDATED: September 19, 2014**

Parameter	Qualifier	Samples Affected	Reason	Value
SVL SDG # W4F0185 Comments:				
Ammonia	Advisory only	14023	Field duplicate %RPD > 20%	98.7% RPD
Phosphorous	Advisory only	14023	Field duplicate %RPD > 20%	33.7% RPD
Nitrate/Nitrite as N	J+	14052	MS/MSD % recovery greater than 75-125% control limits	
SVL SDG # W4F0187 Comments:				
Ammonia	Advisory only	14040	Field split %RPD > 20%	84.5% RPD
Nitrate/Nitrite as N	J	14047	MS/MSD % recovery less than 75-125% control limits	
SVL SDG # W4F0188 Comments:				
No qualifications applied. Results are acceptable.				
SVL SDG # W4F0190 Comments:				
Dissolved Selenium	J	14049, 14050	MS/MSD % recovery greater than 75-125% control limits	
SVL SDG # W4F0192 Comments:				
Phosphorous	Advisory only	14063, 14064	Field duplicate %RPD > 20%	70.9% RPD
Chloride, Fluoride, Nitrate/Nitrite as N, Phosphorus	Advisory only	14067	Field split %RPD > 20%	33.1%, 80.0%, 21.0%, 23.1% RPD
Fluoride, Sulfate as SO ₄	Advisory only	14069	Field split %RPD > 20%	37.2%, 24.0% RPD
SVL SDG # W4F0193 Comments:				
Ammonia	Advisory only	14022	Field duplicate %RPD > 20%	98.7% RPD
Phosphorous	Advisory only	14022	Field duplicate %RPD > 20%	33.7% RPD
Ammonia	J-	14032	MS/MSD % recovery less than 75-125% control limits	
Fluoride	J+	14032	MS/MSD % recovery greater than 75-125% control limits	

Table J-5.1: Data Qualification Summary**DATE VALIDATED: September 19, 2014**

Parameter	Qualifier	Samples Affected	Reason	Value
SVL SDG # W4F0343 Comments:				
Total and Dissolved Selenium	J/UJ	14112, 14113, 14114, 14115, 14116, 14118	% recovery of serial dilution greater than 10% with results >50X MDL	
Chloride	J/UJ	14112, 14113, 14114, 14115, 14116, 14118	Lab duplicate %RPD >20%	36.1% RPD
Nitrate/Nitrite as N	J+	14116	MS/MSD % recovery greater than 75-125% control limits	
Fluoride	Advisory only	14116	Field split %RPD > 20%	49.6% RPD
SVL SDG # W4F0345 Comments:				
Total Cadmium	J+	14105, 14107, 14108, 14109	CCB contamination	
Total Selenium	J/UJ	14105, 14106, 14107, 14108, 14109, 14110, 14111	% recovery of serial dilution greater than 10% with results >50X MDL	
SVL SDG # W4F0346 Comments:				
Total Selenium	J	14097	Internal Standard recovery is low.	
SVL SDG # W4F0347 Comments:				
Total Selenium	J	14076	Lab duplicate %RPD >20%	
Total Selenium	J	14076	MS/MSD % recovery and %RPD out of control.	
Nitrate/Nitrite as N	Advisory only	14076	Field split %RPD > 20%	61.7% RPD
SVL SDG # W4F0348 Comments:				
Chloride, Nitrate/Nitrite as N, Sulfate as SO ₄	Advisory only	14093	Field split %RPD > 20%	20.5%, 92.5%, 25.1% RPD
SVL SDG # W4F0349 Comments:				
Total Manganese	Advisory only	14121, 14122	Field duplicate %RPD > 20%	27.8% RPD
SVL SDG # W4F0350 Comments:				
No qualifications applied. Results are acceptable.				

Table J-5.1: Data Qualification Summary**DATE VALIDATED: September 19, 2014**

Parameter	Qualifier	Samples Affected	Reason	Value
IAS EnviroChem SDG # I406143 Comments:				
Total Dissolved Solids	J	14041, 14061, 14068, 14070	Hold time > 7 days	10 days
Nitrate/Nitrite as N	J	14041, 14061, 14068, 14070, 14094, 14117	Hold time to analysis > 48 hours	10, 10, 10, 10, 6, 5 days
Ammonia	Advisory only	14041	Field split %RPD > 20%	84.5% RPD
Chloride, Fluoride, Nitrate/Nitrite as N, Phosphorus	Advisory only	14068	Field split %RPD > 20%	33.1%, 80.0%, 21.0%, 23.1% RPD
Fluoride, Sulfate as SO ₄	Advisory only	14070	Field split %RPD > 20%	37.2%, 24.0% RPD
Nitrate/Nitrite as N	Advisory only	14077	Field split %RPD > 20%	61.7% RPD
Chloride, Nitrate/Nitrite as N, Sulfate as SO ₄	Advisory only	14094	Field split %RPD > 20%	20.5%, 92.5%, 25.1% RPD
Fluoride	Advisory only	14117	Field split %RPD > 20%	49.6% RPD

TABLE J-5.2: Field Blank Summary

SDG: SVL Analytical # W4F0187

DATE VALIDATED: September 19, 2014

GRUNDFOS BLANK							
SAMPLE ID	COMPOUND/ANALYTE	UNITS	RESULT	QUALIFIER	PQL	MDL	STATUS
14037	Ammonia as N	mg/L	-0.03	U	0.03	0.014	Accept
14037	Bicarbonate	mg/L as CaCO ₃	-1	U	1		Accept
14037	Cadmium	ug/L	-0.68	U	2	0.68	Accept
14037	Calcium	ug/L	-29	U	40	29	Accept
14037	Carbonate	mg/L as CaCO ₃	-1	U	1		Accept
14037	Chloride	mg/L	-0.2	U	0.2	0.05	Accept
14037	Fluoride	mg/L	-0.1	U	0.1	0.03	Accept
14037	Hardness	ug/L	-443	U	923	443	Accept
14037	Magnesium	ug/L	-90	U	200	90	Accept
14037	Manganese	ug/L	-1.3	U	4	1.3	Accept
14037	Molybdenum	ug/L	-2.7	U	8	2.7	Accept
14037	Nitrate/Nitrite as N	mg/L	-0.05	U	0.05	0.024	Accept
14037	Phosphorus	mg/L	0.01		0.01	0.003	DETECT
14037	Potassium	ug/L	-170	U	500	170	Accept
14037	Selenium	ug/L	-0.52	U	2	0.52	Accept
14037	Sodium	ug/L	440	J	500	65	DETECT
14037	Sulfate as SO ₄	mg/L	-0.3	U	0.3	0.06	Accept
14037	Total Alkalinity	mg/L as CaCO ₃	-1	U	1		Accept
14037	Total Diss. Solids	mg/L	-10	U	10		Accept
14037	Vanadium	ug/L	-1.7	U	5	1.7	Accept
14037	Zinc	ug/L	3.4	J	10	3.2	DETECT

SDG: SVL Analytical # W4F0349

DATE VALIDATED: September 19, 2014

DI BLANK							
SAMPLE ID	COMPOUND/ANALYTE	UNITS	RESULT	QUALIFIER	PQL	MDL	STATUS
14126	Ammonia as N	mg/L	-0.03	U	0.03	0.022	Accept
14126	Bicarbonate	mg/L as CaCO ₃	1		1		DETECT
14126	Cadmium	ug/L	-0.68	U	2	0.68	Accept
14126	Calcium	ug/L	-29	U	40	29	Accept
14126	Carbonate	mg/L as CaCO ₃	-1	U	1		Accept
14126	Chloride	mg/L	-0.2	U	0.2	0.05	Accept
14126	Fluoride	mg/L	-0.1	U	0.1	0.03	Accept
14126	Hardness	ug/L	-443	U	923	443	Accept
14126	Magnesium	ug/L	-90	U	200	90	Accept
14126	Manganese	ug/L	-1.3	U	4	1.3	Accept
14126	Molybdenum	ug/L	-2.7	U	8	2.7	Accept
14126	Nitrate/Nitrite as N	mg/L	-0.05	U	0.05	0.022	Accept
14126	Phosphorus	mg/L	-0.01	U	0.01	0.003	Accept
14126	Potassium	ug/L	-170	U	500	170	Accept
14126	Selenium	ug/L	-0.52	U	2	0.52	Accept
14126	Sodium	ug/L	330	J	500	65	DETECT
14126	Sulfate as SO ₄	mg/L	-0.3	U	0.3	0.06	Accept
14126	Total Alkalinity	mg/L as CaCO ₃	1		1		DETECT
14126	Total Diss. Solids	mg/L	-10	U	10		Accept
14126	Vanadium	ug/L	-1.7	U	5	1.7	Accept
14126	Zinc	ug/L	-3.2	U	10	3.2	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 2540 C / Total Diss. Solids									
W4F0190	14019	Water	6/3/2014	6/10/2014	6/10/2014	7	7	7	Accept
W4F0185	14020	Water	6/3/2014	6/10/2014	6/10/2014	7	7	7	Accept
W4F0193	14021	Water	6/3/2014	6/10/2014	6/10/2014	7	7	7	Accept
W4F0193	14022	Water	6/3/2014	6/10/2014	6/10/2014	7	7	7	Accept
W4F0185	14023	Water	6/3/2014	6/10/2014	6/10/2014	7	7	7	Accept
W4F0193	14024	Water	6/3/2014	6/10/2014	6/10/2014	7	7	7	Accept
W4F0193	14025	Water	6/4/2014	6/11/2014	6/11/2014	7	7	7	Accept
W4F0188	14026	Water	6/4/2014	6/11/2014	6/11/2014	7	7	7	Accept
W4F0193	14027	Water	6/4/2014	6/11/2014	6/11/2014	7	7	7	Accept
W4F0188	14028	Water	6/4/2014	6/11/2014	6/11/2014	7	7	7	Accept
W4F0188	14029	Water	6/4/2014	6/11/2014	6/11/2014	7	7	7	Accept
W4F0188	14030	Water	6/4/2014	6/11/2014	6/11/2014	7	7	7	Accept
W4F0193	14031	Water	6/5/2014	6/11/2014	6/11/2014	6	6	7	Accept
W4F0193	14032	Water	6/5/2014	6/11/2014	6/11/2014	6	6	7	Accept
W4F0193	14033	Water	6/5/2014	6/11/2014	6/11/2014	6	6	7	Accept
W4F0193	14034	Water	6/5/2014	6/11/2014	6/11/2014	6	6	7	Accept
W4F0188	14035	Water	6/5/2014	6/11/2014	6/11/2014	6	6	7	Accept
W4F0188	14036	Water	6/5/2014	6/11/2014	6/11/2014	6	6	7	Accept
W4F0187	14037	Water	6/6/2014	6/11/2014	6/12/2014	5	6	7	Accept
W4F0187	14038	Water	6/6/2014	6/11/2014	6/12/2014	5	6	7	Accept
W4F0187	14039	Water	6/6/2014	6/11/2014	6/12/2014	5	6	7	Accept
W4F0187	14040	Water	6/6/2014	6/11/2014	6/12/2014	5	6	7	Accept
I406143	14041	Water	6/8/2014		6/18/2014		10	7	Qual. J
W4F0187	14042	Water	6/6/2014	6/11/2014	6/12/2014	5	6	7	Accept
W4F0188	14043	Water	6/6/2014	6/11/2014	6/11/2014	5	5	7	Accept
W4F0188	14044	Water	6/6/2014	6/11/2014	6/11/2014	5	5	7	Accept
W4F0187	14045	Water	6/6/2014	6/11/2014	6/12/2014	5	6	7	Accept
W4F0188	14046	Water	6/6/2014	6/11/2014	6/11/2014	5	5	7	Accept
W4F0187	14047	Water	6/6/2014	6/11/2014	6/12/2014	5	6	7	Accept
W4F0187	14048	Water	6/6/2014	6/11/2014	6/12/2014	5	6	7	Accept
W4F0190	14049	Water	6/7/2014	6/11/2014	6/12/2014	4	5	7	Accept
W4F0190	14050	Water	6/7/2014	6/11/2014	6/12/2014	4	5	7	Accept
W4F0185	14051	Water	6/7/2014	6/11/2014	6/12/2014	4	5	7	Accept
W4F0185	14052	Water	6/7/2014	6/11/2014	6/12/2014	4	5	7	Accept
W4F0185	14053	Water	6/7/2014	6/11/2014	6/12/2014	4	5	7	Accept
W4F0185	14054	Water	6/7/2014	6/11/2014	6/12/2014	4	5	7	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 2540 C / Total Diss. Solids									
W4F0190	14055	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0190	14056	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0185	14057	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0190	14058	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0190	14059	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0185	14060	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
I1406143	14061	Water	6/8/2014		6/18/2014		10	7	Qual. J
W4F0192	14062	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0192	14063	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0192	14064	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0192	14065	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0192	14066	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0192	14067	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
I1406143	14068	Water	6/8/2014		6/18/2014		10	7	Qual. J
W4F0192	14069	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
I1406143	14070	Water	6/8/2014		6/18/2014		10	7	Qual. J
W4F0192	14071	Water	6/8/2014	6/11/2014	6/12/2014	3	4	7	Accept
W4F0190	14072	Water	6/9/2014	6/11/2014	6/12/2014	2	3	7	Accept
W4F0190	14073	Water	6/9/2014	6/11/2014	6/12/2014	2	3	7	Accept
W4F0347	14074	Water	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0350	14075	Water	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0347	14076	Water	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
I1406143	14077	Water	6/16/2014		6/18/2014		2	7	Accept
W4F0348	14078	Water	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0350	14079	Water	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0350	14080	Water	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0350	14081	Water	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0347	14082	Water	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0347	14083	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0347	14084	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0350	14085	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0347	14086	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0350	14087	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0347	14088	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0347	14089	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0350	14090	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 2540 C / Total Diss. Solids									
W4F0347	14091	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0350	14092	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0348	14093	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
I1406143	14094	Water	6/12/2014		6/18/2014		6	7	Accept
W4F0346	14095	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0346	14096	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0346	14097	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0346	14098	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0348	14099	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0348	14100	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0346	14101	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0348	14102	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0348	14103	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0350	14104	Water	6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0345	14105	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0345	14106	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0345	14107	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0345	14108	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0345	14109	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0345	14110	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0345	14111	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0343	14112	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0343	14113	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0343	14114	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0343	14115	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0343	14116	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
I1406143	14117	Water	6/13/2014		6/18/2014		5	7	Accept
W4F0343	14118	Water	6/13/2014	6/18/2014	6/18/2014	5	5	7	Accept
W4F0349	14119	Water	6/14/2014	6/18/2014	6/18/2014	4	4	7	Accept
W4F0349	14120	Water	6/14/2014	6/18/2014	6/18/2014	4	4	7	Accept
W4F0349	14121	Water	6/14/2014	6/18/2014	6/18/2014	4	4	7	Accept
W4F0349	14122	Water	6/14/2014	6/18/2014	6/18/2014	4	4	7	Accept
W4F0349	14123	Water	6/14/2014	6/18/2014	6/18/2014	4	4	7	Accept
W4F0349	14124	Water	6/14/2014	6/18/2014	6/18/2014	4	4	7	Accept
W4F0347	14125	Water	6/14/2014	6/18/2014	6/18/2014	4	4	7	Accept
W4F0349	14126	Water	6/14/2014	6/18/2014	6/18/2014	4	4	7	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 4500 P-E or EPA 365.3 / Total Phosphorus									
W4F0190	14019	Water	6/3/2014	6/24/2014	6/24/2014	21	21	28	Accept
W4F0185	14020	Water	6/3/2014	6/20/2014	6/20/2014	17	17	28	Accept
W4F0193	14021	Water	6/3/2014	6/24/2014	6/24/2014	21	21	28	Accept
W4F0193	14022	Water	6/3/2014	6/24/2014	6/24/2014	21	21	28	Accept
W4F0185	14023	Water	6/3/2014	6/20/2014	6/20/2014	17	17	28	Accept
W4F0193	14024	Water	6/3/2014	6/24/2014	6/24/2014	21	21	28	Accept
W4F0193	14025	Water	6/4/2014	6/23/2014	6/24/2014	19	20	28	Accept
W4F0188	14026	Water	6/4/2014	6/19/2014	6/19/2014	15	15	28	Accept
W4F0193	14027	Water	6/4/2014	6/23/2014	6/24/2014	19	20	28	Accept
W4F0188	14028	Water	6/4/2014	6/19/2014	6/19/2014	15	15	28	Accept
W4F0188	14029	Water	6/4/2014	6/19/2014	6/19/2014	15	15	28	Accept
W4F0188	14030	Water	6/4/2014	6/19/2014	6/19/2014	15	15	28	Accept
W4F0193	14031	Water	6/5/2014	6/24/2014	6/24/2014	19	19	28	Accept
W4F0193	14032	Water	6/5/2014	6/23/2014	6/24/2014	18	19	28	Accept
W4F0193	14033	Water	6/5/2014	6/23/2014	6/24/2014	18	19	28	Accept
W4F0193	14034	Water	6/5/2014	6/23/2014	6/24/2014	18	19	28	Accept
W4F0188	14035	Water	6/5/2014	6/19/2014	6/19/2014	14	14	28	Accept
W4F0188	14036	Water	6/5/2014	6/19/2014	6/19/2014	14	14	28	Accept
W4F0187	14037	Water	6/6/2014	6/20/2014	6/20/2014	14	14	28	Accept
W4F0187	14038	Water	6/6/2014	6/20/2014	6/20/2014	14	14	28	Accept
W4F0187	14039	Water	6/6/2014	6/20/2014	6/20/2014	14	14	28	Accept
W4F0187	14040	Water	6/6/2014	6/20/2014	6/20/2014	14	14	28	Accept
I1406143	14041	Water	6/8/2014		6/18/2014		10	28	Accept
W4F0187	14042	Water	6/6/2014	6/20/2014	6/20/2014	14	14	28	Accept
W4F0188	14043	Water	6/6/2014	6/19/2014	6/19/2014	13	13	28	Accept
W4F0188	14044	Water	6/6/2014	6/19/2014	6/19/2014	13	13	28	Accept
W4F0187	14045	Water	6/6/2014	6/20/2014	6/20/2014	14	14	28	Accept
W4F0188	14046	Water	6/6/2014	6/19/2014	6/19/2014	13	13	28	Accept
W4F0187	14047	Water	6/6/2014	6/20/2014	6/20/2014	14	14	28	Accept
W4F0187	14048	Water	6/6/2014	6/20/2014	6/20/2014	14	14	28	Accept
W4F0190	14049	Water	6/7/2014	6/24/2014	6/24/2014	17	17	28	Accept
W4F0190	14050	Water	6/7/2014	6/24/2014	6/24/2014	17	17	28	Accept
W4F0185	14051	Water	6/7/2014	6/20/2014	6/20/2014	13	13	28	Accept
W4F0185	14052	Water	6/7/2014	6/20/2014	6/20/2014	13	13	28	Accept
W4F0185	14053	Water	6/7/2014	6/20/2014	6/20/2014	13	13	28	Accept
W4F0185	14054	Water	6/7/2014	6/20/2014	6/20/2014	13	13	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 4500 P-E or EPA 365.3 / Total Phosphorus									
W4F0190	14055	Water	6/8/2014	6/24/2014	6/24/2014	16	16	28	Accept
W4F0190	14056	Water	6/8/2014	6/24/2014	6/24/2014	16	16	28	Accept
W4F0185	14057	Water	6/8/2014	6/20/2014	6/20/2014	12	12	28	Accept
W4F0190	14058	Water	6/8/2014	6/24/2014	6/24/2014	16	16	28	Accept
W4F0190	14059	Water	6/8/2014	6/24/2014	6/24/2014	16	16	28	Accept
W4F0185	14060	Water	6/8/2014	6/20/2014	6/20/2014	12	12	28	Accept
I1406143	14061	Water	6/8/2014		6/18/2014		10	28	Accept
W4F0192	14062	Water	6/8/2014	6/23/2014	6/24/2014	15	16	28	Accept
W4F0192	14063	Water	6/8/2014	6/23/2014	6/24/2014	15	16	28	Accept
W4F0192	14064	Water	6/8/2014	6/23/2014	6/24/2014	15	16	28	Accept
W4F0192	14065	Water	6/8/2014	6/23/2014	6/24/2014	15	16	28	Accept
W4F0192	14066	Water	6/8/2014	6/23/2014	6/24/2014	15	16	28	Accept
W4F0192	14067	Water	6/8/2014	6/23/2014	6/24/2014	15	16	28	Accept
I1406143	14068	Water	6/8/2014		6/18/2014		10	28	Accept
W4F0192	14069	Water	6/8/2014	6/23/2014	6/24/2014	15	16	28	Accept
I1406143	14070	Water	6/8/2014		6/18/2014		10	28	Accept
W4F0192	14071	Water	6/8/2014	6/23/2014	6/24/2014	15	16	28	Accept
W4F0190	14072	Water	6/9/2014	6/24/2014	6/24/2014	15	15	28	Accept
W4F0190	14073	Water	6/9/2014	6/24/2014	6/24/2014	15	15	28	Accept
W4F0347	14074	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0350	14075	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347	14076	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
I1406143	14077	Water	6/16/2014		6/18/2014		2	28	Accept
W4F0348	14078	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0350	14079	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0350	14080	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0350	14081	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347	14082	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347	14083	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347	14084	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0350	14085	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347	14086	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0350	14087	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347	14088	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347	14089	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0350	14090	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 4500 P-E or EPA 365.3 / Total Phosphorus									
W4F0347	14091	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0350	14092	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0348	14093	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
I1406143	14094	Water	6/12/2014		6/18/2014		6	28	Accept
W4F0346	14095	Water	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept
W4F0346	14096	Water	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept
W4F0346	14097	Water	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept
W4F0346	14098	Water	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept
W4F0348	14099	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0348	14100	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346	14101	Water	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept
W4F0348	14102	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0348	14103	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0350	14104	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0345	14105	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0345	14106	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0345	14107	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0345	14108	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0345	14109	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0345	14110	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0345	14111	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0343	14112	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0343	14113	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0343	14114	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0343	14115	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0343	14116	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
I1406143	14117	Water	6/13/2014		6/18/2014		5	28	Accept
W4F0343	14118	Water	6/13/2014	6/30/2014	6/30/2014	17	17	28	Accept
W4F0349	14119	Water	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
W4F0349	14120	Water	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
W4F0349	14121	Water	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
W4F0349	14122	Water	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
W4F0349	14123	Water	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
W4F0349	14124	Water	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
W4F0347	14125	Water	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
W4F0349	14126	Water	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 2320 B / Bicarbonate, Carbonate, Total Alkalinity									
W4F0190	14019	Water	6/3/2014	6/11/2014	6/11/2014	8	8	14	Accept
W4F0185	14020	Water	6/3/2014	6/12/2014	6/12/2014	9	9	14	Accept
W4F0193	14021	Water	6/3/2014	6/11/2014	6/11/2014	8	8	14	Accept
W4F0193	14022	Water	6/3/2014	6/11/2014	6/11/2014	8	8	14	Accept
W4F0185	14023	Water	6/3/2014	6/12/2014	6/12/2014	9	9	14	Accept
W4F0193	14024	Water	6/3/2014	6/11/2014	6/11/2014	8	8	14	Accept
W4F0193	14025	Water	6/4/2014	6/11/2014	6/11/2014	7	7	14	Accept
W4F0188	14026	Water	6/4/2014	6/11/2014	6/11/2014	7	7	14	Accept
W4F0193	14027	Water	6/4/2014	6/11/2014	6/11/2014	7	7	14	Accept
W4F0188	14028	Water	6/4/2014	6/11/2014	6/11/2014	7	7	14	Accept
W4F0188	14029	Water	6/4/2014	6/11/2014	6/11/2014	7	7	14	Accept
W4F0188	14030	Water	6/4/2014	6/11/2014	6/11/2014	7	7	14	Accept
W4F0193	14031	Water	6/5/2014	6/11/2014	6/11/2014	6	6	14	Accept
W4F0193	14032	Water	6/5/2014	6/11/2014	6/11/2014	6	6	14	Accept
W4F0193	14033	Water	6/5/2014	6/11/2014	6/11/2014	6	6	14	Accept
W4F0193	14034	Water	6/5/2014	6/11/2014	6/11/2014	6	6	14	Accept
W4F0188	14035	Water	6/5/2014	6/11/2014	6/11/2014	6	6	14	Accept
W4F0188	14036	Water	6/5/2014	6/11/2014	6/11/2014	6	6	14	Accept
W4F0187	14037	Water	6/6/2014	6/12/2014	6/12/2014	6	6	14	Accept
W4F0187	14038	Water	6/6/2014	6/12/2014	6/12/2014	6	6	14	Accept
W4F0187	14039	Water	6/6/2014	6/12/2014	6/12/2014	6	6	14	Accept
W4F0187	14040	Water	6/6/2014	6/12/2014	6/12/2014	6	6	14	Accept
I1406143	14041	Water	6/8/2014		6/20/2014		12	14	Accept
W4F0187	14042	Water	6/6/2014	6/12/2014	6/12/2014	6	6	14	Accept
W4F0188	14043	Water	6/6/2014	6/11/2014	6/11/2014	5	5	14	Accept
W4F0188	14044	Water	6/6/2014	6/11/2014	6/11/2014	5	5	14	Accept
W4F0187	14045	Water	6/6/2014	6/12/2014	6/12/2014	6	6	14	Accept
W4F0188	14046	Water	6/6/2014	6/11/2014	6/11/2014	5	5	14	Accept
W4F0187	14047	Water	6/6/2014	6/12/2014	6/12/2014	6	6	14	Accept
W4F0187	14048	Water	6/6/2014	6/12/2014	6/12/2014	6	6	14	Accept
W4F0190	14049	Water	6/7/2014	6/11/2014	6/11/2014	4	4	14	Accept
W4F0190	14050	Water	6/7/2014	6/11/2014	6/11/2014	4	4	14	Accept
W4F0185	14051	Water	6/7/2014	6/12/2014	6/12/2014	5	5	14	Accept
W4F0185	14052	Water	6/7/2014	6/12/2014	6/12/2014	5	5	14	Accept
W4F0185	14053	Water	6/7/2014	6/12/2014	6/12/2014	5	5	14	Accept
W4F0185	14054	Water	6/7/2014	6/12/2014	6/12/2014	5	5	14	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 2320 B / Bicarbonate, Carbonate, Total Alkalinity									
W4F0190	14055	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0190	14056	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0185	14057	Water	6/8/2014	6/12/2014	6/12/2014	4	4	14	Accept
W4F0190	14058	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0190	14059	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0185	14060	Water	6/8/2014	6/12/2014	6/12/2014	4	4	14	Accept
I1406143	14061	Water	6/8/2014		6/20/2014		12	14	Accept
W4F0192	14062	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0192	14063	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0192	14064	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0192	14065	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0192	14066	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0192	14067	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
I1406143	14068	Water	6/8/2014		6/20/2014		12	14	Accept
W4F0192	14069	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
I1406143	14070	Water	6/8/2014		6/20/2014		12	14	Accept
W4F0192	14071	Water	6/8/2014	6/11/2014	6/11/2014	3	3	14	Accept
W4F0190	14072	Water	6/9/2014	6/11/2014	6/11/2014	2	2	14	Accept
W4F0190	14073	Water	6/9/2014	6/11/2014	6/11/2014	2	2	14	Accept
W4F0347	14074	Water	6/10/2014	6/19/2014	6/19/2014	9	9	14	Accept
W4F0350	14075	Water	6/10/2014	6/18/2014	6/19/2014	8	9	14	Accept
W4F0347	14076	Water	6/10/2014	6/19/2014	6/19/2014	9	9	14	Accept
I1406143	14077	Water	6/16/2014		6/20/2014		4	14	Accept
W4F0348	14078	Water	6/10/2014	6/19/2014	6/19/2014	9	9	14	Accept
W4F0350	14079	Water	6/10/2014	6/18/2014	6/19/2014	8	9	14	Accept
W4F0350	14080	Water	6/10/2014	6/19/2014	6/19/2014	9	9	14	Accept
W4F0350	14081	Water	6/10/2014	6/19/2014	6/19/2014	9	9	14	Accept
W4F0347	14082	Water	6/10/2014	6/19/2014	6/19/2014	9	9	14	Accept
W4F0347	14083	Water	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0347	14084	Water	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0350	14085	Water	6/11/2014	6/18/2014	6/19/2014	7	8	14	Accept
W4F0347	14086	Water	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0350	14087	Water	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0347	14088	Water	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0347	14089	Water	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0350	14090	Water	6/11/2014	6/18/2014	6/19/2014	7	8	14	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 2320 B / Bicarbonate, Carbonate, Total Alkalinity									
W4F0347	14091	Water	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0350	14092	Water	6/11/2014	6/18/2014	6/19/2014	7	8	14	Accept
W4F0348	14093	Water	6/12/2014	6/19/2014	6/19/2014	7	7	14	Accept
I1406143	14094	Water	6/12/2014		6/20/2014		8	14	Accept
W4F0346	14095	Water	6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
W4F0346	14096	Water	6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
W4F0346	14097	Water	6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
W4F0346	14098	Water	6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
W4F0348	14099	Water	6/12/2014	6/19/2014	6/19/2014	7	7	14	Accept
W4F0348	14100	Water	6/12/2014	6/19/2014	6/19/2014	7	7	14	Accept
W4F0346	14101	Water	6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
W4F0348	14102	Water	6/12/2014	6/19/2014	6/19/2014	7	7	14	Accept
W4F0348	14103	Water	6/12/2014	6/19/2014	6/19/2014	7	7	14	Accept
W4F0350	14104	Water	6/12/2014	6/19/2014	6/19/2014	7	7	14	Accept
W4F0345	14105	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0345	14106	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0345	14107	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0345	14108	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0345	14109	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0345	14110	Water	6/13/2014	6/18/2014	6/19/2014	5	6	14	Accept
W4F0345	14111	Water	6/13/2014	6/18/2014	6/19/2014	5	6	14	Accept
W4F0343	14112	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0343	14113	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0343	14114	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0343	14115	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0343	14116	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
I1406143	14117	Water	6/13/2014		6/20/2014		7	14	Accept
W4F0343	14118	Water	6/13/2014	6/19/2014	6/19/2014	6	6	14	Accept
W4F0349	14119	Water	6/14/2014	6/19/2014	6/19/2014	5	5	14	Accept
W4F0349	14120	Water	6/14/2014	6/19/2014	6/19/2014	5	5	14	Accept
W4F0349	14121	Water	6/14/2014	6/19/2014	6/19/2014	5	5	14	Accept
W4F0349	14122	Water	6/14/2014	6/19/2014	6/19/2014	5	5	14	Accept
W4F0349	14123	Water	6/14/2014	6/19/2014	6/19/2014	5	5	14	Accept
W4F0349	14124	Water	6/14/2014	6/19/2014	6/19/2014	5	5	14	Accept
W4F0347	14125	Water	6/14/2014	6/19/2014	6/19/2014	5	5	14	Accept
W4F0349	14126	Water	6/14/2014	6/19/2014	6/19/2014	5	5	14	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 353.2 or 300.0 / Nitrate/Nitrite as N									
W4F0190	14019	Water	6/3/2014	6/18/2014	6/18/2014	15	15	28	Accept
W4F0185	14020	Water	6/3/2014	6/18/2014	6/18/2014	15	15	28	Accept
W4F0193	14021	Water	6/3/2014	6/18/2014	6/18/2014	15	15	28	Accept
W4F0193	14022	Water	6/3/2014	6/18/2014	6/18/2014	15	15	28	Accept
W4F0185	14023	Water	6/3/2014	6/18/2014	6/18/2014	15	15	28	Accept
W4F0193	14024	Water	6/3/2014	6/18/2014	6/18/2014	15	15	28	Accept
W4F0193	14025	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0188	14026	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0193	14027	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0188	14028	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0188	14029	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0188	14030	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0193	14031	Water	6/5/2014	6/13/2014	6/18/2014	8	13	28	Accept
W4F0193	14032	Water	6/5/2014	6/18/2014	6/18/2014	13	13	28	Accept
W4F0193	14033	Water	6/5/2014	6/18/2014	6/18/2014	13	13	28	Accept
W4F0193	14034	Water	6/5/2014	6/18/2014	6/18/2014	13	13	28	Accept
W4F0188	14035	Water	6/5/2014	6/18/2014	6/18/2014	13	13	28	Accept
W4F0188	14036	Water	6/5/2014	6/18/2014	6/18/2014	13	13	28	Accept
W4F0187	14037	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14038	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14039	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14040	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
I1406143	14041	Water	6/8/2014		6/18/2014		10	2	Qual. J
W4F0187	14042	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0188	14043	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0188	14044	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14045	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0188	14046	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14047	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14048	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0190	14049	Water	6/7/2014	6/18/2014	6/18/2014	11	11	28	Accept
W4F0190	14050	Water	6/7/2014	6/18/2014	6/18/2014	11	11	28	Accept
W4F0185	14051	Water	6/7/2014	6/18/2014	6/18/2014	11	11	28	Accept
W4F0185	14052	Water	6/7/2014	6/19/2014	6/19/2014	12	12	28	Accept
W4F0185	14053	Water	6/7/2014	6/18/2014	6/18/2014	11	11	28	Accept
W4F0185	14054	Water	6/7/2014	6/18/2014	6/18/2014	11	11	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 353.2 or 300.0 / Nitrate/Nitrite as N									
W4F0190	14055	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0190	14056	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0185	14057	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0190	14058	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0190	14059	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0185	14060	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
I1406143	14061	Water	6/8/2014		6/18/2014		10	2	Qual. J
W4F0192	14062	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0192	14063	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0192	14064	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0192	14065	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0192	14066	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0192	14067	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
I1406143	14068	Water	6/8/2014		6/18/2014		10	2	Qual. J
W4F0192	14069	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
I1406143	14070	Water	6/8/2014		6/18/2014		10	2	Qual. J
W4F0192	14071	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0190	14072	Water	6/9/2014	6/18/2014	6/18/2014	9	9	28	Accept
W4F0190	14073	Water	6/9/2014	6/18/2014	6/18/2014	9	9	28	Accept
W4F0347	14074	Water	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0350	14075	Water	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0347	14076	Water	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
I1406143	14077	Water	6/16/2014		6/17/2014		1	2	Accept
W4F0348	14078	Water	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0350	14079	Water	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0350	14080	Water	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0350	14081	Water	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0347	14082	Water	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0347	14083	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347	14084	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0350	14085	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347	14086	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0350	14087	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347	14088	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347	14089	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0350	14090	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 353.2 or 300.0 / Nitrate/Nitrite as N									
W4F0347	14091	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0350	14092	Water	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0348	14093	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
I1406143	14094	Water	6/12/2014		6/18/2014		6	2	Qual. J
W4F0346	14095	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0346	14096	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0346	14097	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0346	14098	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0348	14099	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0348	14100	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0346	14101	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0348	14102	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0348	14103	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0350	14104	Water	6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0345	14105	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0345	14106	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0345	14107	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0345	14108	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0345	14109	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0345	14110	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0345	14111	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0343	14112	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0343	14113	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0343	14114	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0343	14115	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0343	14116	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
I1406143	14117	Water	6/13/2014		6/18/2014		5	2	Qual. J
W4F0343	14118	Water	6/13/2014	6/24/2014	7/2/2014	11	19	28	Accept
W4F0349	14119	Water	6/14/2014	6/24/2014	7/2/2014	10	18	28	Accept
W4F0349	14120	Water	6/14/2014	6/24/2014	7/2/2014	10	18	28	Accept
W4F0349	14121	Water	6/14/2014	6/24/2014	7/2/2014	10	18	28	Accept
W4F0349	14122	Water	6/14/2014	6/24/2014	7/2/2014	10	18	28	Accept
W4F0349	14123	Water	6/14/2014	6/24/2014	7/2/2014	10	18	28	Accept
W4F0349	14124	Water	6/14/2014	6/24/2014	7/2/2014	10	18	28	Accept
W4F0347	14125	Water	6/14/2014	6/24/2014	7/2/2014	10	18	28	Accept
W4F0349	14126	Water	6/14/2014	6/24/2014	7/2/2014	10	18	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 350.1 or SM 4500-NH3-G / Ammonia as N									
W4F0190	14019	Water	6/3/2014	6/20/2014	6/24/2014	17	21	28	Accept
W4F0185	14020	Water	6/3/2014	6/17/2014	6/20/2014	14	17	28	Accept
W4F0193	14021	Water	6/3/2014	6/20/2014	6/24/2014	17	21	28	Accept
W4F0193	14022	Water	6/3/2014	6/20/2014	6/24/2014	17	21	28	Accept
W4F0185	14023	Water	6/3/2014	6/17/2014	6/20/2014	14	17	28	Accept
W4F0193	14024	Water	6/3/2014	6/20/2014	6/24/2014	17	21	28	Accept
W4F0193	14025	Water	6/4/2014	6/20/2014	6/24/2014	16	20	28	Accept
W4F0188	14026	Water	6/4/2014	6/20/2014	6/24/2014	16	20	28	Accept
W4F0193	14027	Water	6/4/2014	6/20/2014	6/24/2014	16	20	28	Accept
W4F0188	14028	Water	6/4/2014	6/20/2014	6/24/2014	16	20	28	Accept
W4F0188	14029	Water	6/4/2014	6/20/2014	6/24/2014	16	20	28	Accept
W4F0188	14030	Water	6/4/2014	6/20/2014	6/24/2014	16	20	28	Accept
W4F0193	14031	Water	6/5/2014	6/20/2014	6/24/2014	15	19	28	Accept
W4F0193	14032	Water	6/5/2014	6/20/2014	6/24/2014	15	19	28	Accept
W4F0193	14033	Water	6/5/2014	6/20/2014	6/24/2014	15	19	28	Accept
W4F0193	14034	Water	6/5/2014	6/20/2014	6/24/2014	15	19	28	Accept
W4F0188	14035	Water	6/5/2014	6/20/2014	6/24/2014	15	19	28	Accept
W4F0188	14036	Water	6/5/2014	6/20/2014	6/24/2014	15	19	28	Accept
W4F0187	14037	Water	6/6/2014	6/17/2014	6/20/2014	11	14	28	Accept
W4F0187	14038	Water	6/6/2014	6/17/2014	6/20/2014	11	14	28	Accept
W4F0187	14039	Water	6/6/2014	6/17/2014	6/20/2014	11	14	28	Accept
W4F0187	14040	Water	6/6/2014	6/17/2014	6/20/2014	11	14	28	Accept
I1406143	14041	Water	6/8/2014		6/24/2014		16	28	Accept
W4F0187	14042	Water	6/6/2014	6/17/2014	6/20/2014	11	14	28	Accept
W4F0188	14043	Water	6/6/2014	6/20/2014	6/24/2014	14	18	28	Accept
W4F0188	14044	Water	6/6/2014	6/20/2014	6/24/2014	14	18	28	Accept
W4F0187	14045	Water	6/6/2014	6/17/2014	6/20/2014	11	14	28	Accept
W4F0188	14046	Water	6/6/2014	6/20/2014	6/24/2014	14	18	28	Accept
W4F0187	14047	Water	6/6/2014	6/17/2014	6/20/2014	11	14	28	Accept
W4F0187	14048	Water	6/6/2014	6/17/2014	6/20/2014	11	14	28	Accept
W4F0190	14049	Water	6/7/2014	6/20/2014	6/24/2014	13	17	28	Accept
W4F0190	14050	Water	6/7/2014	6/20/2014	6/24/2014	13	17	28	Accept
W4F0185	14051	Water	6/7/2014	6/17/2014	6/20/2014	10	13	28	Accept
W4F0185	14052	Water	6/7/2014	6/17/2014	6/20/2014	10	13	28	Accept
W4F0185	14053	Water	6/7/2014	6/17/2014	6/20/2014	10	13	28	Accept
W4F0185	14054	Water	6/7/2014	6/17/2014	6/20/2014	10	13	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 350.1 or SM 4500-NH3-G / Ammonia as N									
W4F0190	14055	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0190	14056	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0185	14057	Water	6/8/2014	6/17/2014	6/20/2014	9	12	28	Accept
W4F0190	14058	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0190	14059	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0185	14060	Water	6/8/2014	6/17/2014	6/20/2014	9	12	28	Accept
I1406143	14061	Water	6/8/2014		6/24/2014		16	28	Accept
W4F0192	14062	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0192	14063	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0192	14064	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0192	14065	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0192	14066	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0192	14067	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
I1406143	14068	Water	6/8/2014		6/24/2014		16	28	Accept
W4F0192	14069	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
I1406143	14070	Water	6/8/2014		6/24/2014		16	28	Accept
W4F0192	14071	Water	6/8/2014	6/20/2014	6/24/2014	12	16	28	Accept
W4F0190	14072	Water	6/9/2014	6/20/2014	6/24/2014	11	15	28	Accept
W4F0190	14073	Water	6/9/2014	6/20/2014	6/24/2014	11	15	28	Accept
W4F0347	14074	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0350	14075	Water	6/10/2014	6/30/2014	7/1/2014	20	21	28	Accept
W4F0347	14076	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
I1406143	14077	Water	6/16/2014		6/24/2014		8	28	Accept
W4F0348	14078	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0350	14079	Water	6/10/2014	6/30/2014	7/1/2014	20	21	28	Accept
W4F0350	14080	Water	6/10/2014	6/30/2014	7/1/2014	20	21	28	Accept
W4F0350	14081	Water	6/10/2014	6/30/2014	7/1/2014	20	21	28	Accept
W4F0347	14082	Water	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347	14083	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347	14084	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0350	14085	Water	6/11/2014	6/30/2014	7/1/2014	19	20	28	Accept
W4F0347	14086	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0350	14087	Water	6/11/2014	6/30/2014	7/1/2014	19	20	28	Accept
W4F0347	14088	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347	14089	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0350	14090	Water	6/11/2014	6/30/2014	7/1/2014	19	20	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 350.1 or SM 4500-NH3-G / Ammonia as N									
W4F0347	14091	Water	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0350	14092	Water	6/11/2014	6/30/2014	7/1/2014	19	20	28	Accept
W4F0348	14093	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
I1406143	14094	Water	6/12/2014		6/24/2014		12	28	Accept
W4F0346	14095	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346	14096	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346	14097	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346	14098	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0348	14099	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0348	14100	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346	14101	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0348	14102	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0348	14103	Water	6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0350	14104	Water	6/12/2014	6/30/2014	7/1/2014	18	19	28	Accept
W4F0345	14105	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0345	14106	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0345	14107	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0345	14108	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0345	14109	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0345	14110	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0345	14111	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0343	14112	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0343	14113	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0343	14114	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0343	14115	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0343	14116	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
I1406143	14117	Water	6/13/2014		6/24/2014		11	28	Accept
W4F0343	14118	Water	6/13/2014	7/1/2014	7/1/2014	18	18	28	Accept
W4F0349	14119	Water	6/14/2014	6/30/2014	7/1/2014	16	17	28	Accept
W4F0349	14120	Water	6/14/2014	6/30/2014	7/1/2014	16	17	28	Accept
W4F0349	14121	Water	6/14/2014	6/30/2014	7/1/2014	16	17	28	Accept
W4F0349	14122	Water	6/14/2014	6/30/2014	7/1/2014	16	17	28	Accept
W4F0349	14123	Water	6/14/2014	6/30/2014	7/1/2014	16	17	28	Accept
W4F0349	14124	Water	6/14/2014	6/30/2014	7/1/2014	16	17	28	Accept
W4F0347	14125	Water	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
W4F0349	14126	Water	6/14/2014	6/30/2014	7/1/2014	16	17	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 300.0 / Chloride, Fluoride, Sulfate as SO₄									
W4F0190	14019	Water	6/3/2014	6/18/2014	6/18/2014	15	15	28	Accept
W4F0185	14020	Water	6/3/2014	6/17/2014	6/17/2014	14	14	28	Accept
W4F0193	14021	Water	6/3/2014	6/19/2014	6/19/2014	16	16	28	Accept
W4F0193	14022	Water	6/3/2014	6/19/2014	6/19/2014	16	16	28	Accept
W4F0185	14023	Water	6/3/2014	6/17/2014	6/17/2014	14	14	28	Accept
W4F0193	14024	Water	6/3/2014	6/19/2014	6/19/2014	16	16	28	Accept
W4F0193	14025	Water	6/4/2014	6/19/2014	6/19/2014	15	15	28	Accept
W4F0188	14026	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0193	14027	Water	6/4/2014	6/19/2014	6/19/2014	15	15	28	Accept
W4F0188	14028	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0188	14029	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0188	14030	Water	6/4/2014	6/18/2014	6/18/2014	14	14	28	Accept
W4F0193	14031	Water	6/5/2014	6/19/2014	6/19/2014	14	14	28	Accept
W4F0193	14032	Water	6/5/2014	6/19/2014	6/19/2014	14	14	28	Accept
W4F0193	14033	Water	6/5/2014	6/19/2014	6/19/2014	14	14	28	Accept
W4F0193	14034	Water	6/5/2014	6/19/2014	6/19/2014	14	14	28	Accept
W4F0188	14035	Water	6/5/2014	6/18/2014	6/18/2014	13	13	28	Accept
W4F0188	14036	Water	6/5/2014	6/18/2014	6/18/2014	13	13	28	Accept
W4F0187	14037	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14038	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14039	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14040	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
I1406143	14041	Water	6/8/2014		6/18/2014		10	28	Accept
W4F0187	14042	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0188	14043	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0188	14044	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14045	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0188	14046	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14047	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0187	14048	Water	6/6/2014	6/18/2014	6/18/2014	12	12	28	Accept
W4F0190	14049	Water	6/7/2014	6/18/2014	6/18/2014	11	11	28	Accept
W4F0190	14050	Water	6/7/2014	6/18/2014	6/19/2014	11	12	28	Accept
W4F0185	14051	Water	6/7/2014	6/17/2014	6/17/2014	10	10	28	Accept
W4F0185	14052	Water	6/7/2014	6/17/2014	6/17/2014	10	10	28	Accept
W4F0185	14053	Water	6/7/2014	6/17/2014	6/17/2014	10	10	28	Accept
W4F0185	14054	Water	6/7/2014	6/17/2014	6/17/2014	10	10	28	Accept
W4F0190	14055	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 300.0 / Chloride, Fluoride, Sulfate as SO₄									
W4F0190	14056	Water	6/8/2014	6/18/2014	6/18/2014	10	10	28	Accept
W4F0185	14057	Water	6/8/2014	6/17/2014	6/17/2014	9	9	28	Accept
W4F0190	14058	Water	6/8/2014	6/18/2014	6/19/2014	10	11	28	Accept
W4F0190	14059	Water	6/8/2014	6/18/2014	6/19/2014	10	11	28	Accept
W4F0185	14060	Water	6/8/2014	6/17/2014	6/17/2014	9	9	28	Accept
I1406143	14061	Water	6/8/2014		6/18/2014		10	28	Accept
W4F0192	14062	Water	6/8/2014	6/19/2014	6/19/2014	11	11	28	Accept
W4F0192	14063	Water	6/8/2014	6/19/2014	6/19/2014	11	11	28	Accept
W4F0192	14064	Water	6/8/2014	6/19/2014	6/19/2014	11	11	28	Accept
W4F0192	14065	Water	6/8/2014	6/19/2014	6/19/2014	11	11	28	Accept
W4F0192	14066	Water	6/8/2014	6/19/2014	6/19/2014	11	11	28	Accept
W4F0192	14067	Water	6/8/2014	6/19/2014	6/19/2014	11	11	28	Accept
I1406143	14068	Water	6/8/2014		6/18/2014		10	28	Accept
W4F0192	14069	Water	6/8/2014	6/19/2014	6/20/2014	11	12	28	Accept
I1406143	14070	Water	6/8/2014		6/18/2014		10	28	Accept
I1406143	14070	Water	6/8/2014		6/17/2014		9	28	Accept
W4F0192	14071	Water	6/8/2014	6/19/2014	6/20/2014	11	12	28	Accept
W4F0190	14072	Water	6/9/2014	6/18/2014	6/19/2014	9	10	28	Accept
W4F0190	14073	Water	6/9/2014	6/18/2014	6/19/2014	9	10	28	Accept
W4F0347	14074	Water	6/10/2014	6/25/2014	6/25/2014	15	15	28	Accept
W4F0350	14075	Water	6/10/2014	6/26/2014	6/26/2014	16	16	28	Accept
W4F0347	14076	Water	6/10/2014	6/25/2014	6/25/2014	15	15	28	Accept
I1406143	14077	Water	6/16/2014		6/17/2014		1	28	Accept
W4F0348	14078	Water	6/10/2014	6/26/2014	6/26/2014	16	16	28	Accept
W4F0350	14079	Water	6/10/2014	6/26/2014	6/26/2014	16	16	28	Accept
W4F0350	14080	Water	6/10/2014	6/26/2014	6/26/2014	16	16	28	Accept
W4F0350	14081	Water	6/10/2014	6/26/2014	6/26/2014	16	16	28	Accept
W4F0347	14082	Water	6/10/2014	6/25/2014	6/25/2014	15	15	28	Accept
W4F0347	14083	Water	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0347	14084	Water	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0350	14085	Water	6/11/2014	6/26/2014	6/26/2014	15	15	28	Accept
W4F0347	14086	Water	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0350	14087	Water	6/11/2014	6/26/2014	6/26/2014	15	15	28	Accept
W4F0347	14088	Water	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0347	14089	Water	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0350	14090	Water	6/11/2014	6/26/2014	6/26/2014	15	15	28	Accept
W4F0347	14091	Water	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 300.0 / Chloride, Fluoride, Sulfate as SO ₄									
W4F0350	14092	Water	6/11/2014	6/26/2014	6/26/2014	15	15	28	Accept
W4F0348	14093	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
I1406143	14094	Water	6/12/2014		6/18/2014		6	28	Accept
W4F0346	14095	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0346	14096	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0346	14097	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0346	14098	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0348	14099	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0348	14100	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0346	14101	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0348	14102	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0348	14103	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0350	14104	Water	6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0345	14105	Water	6/13/2014	6/25/2014	6/25/2014	12	12	28	Accept
W4F0345	14106	Water	6/13/2014	6/25/2014	6/25/2014	12	12	28	Accept
W4F0345	14107	Water	6/13/2014	6/25/2014	6/25/2014	12	12	28	Accept
W4F0345	14108	Water	6/13/2014	6/25/2014	6/25/2014	12	12	28	Accept
W4F0345	14109	Water	6/13/2014	6/25/2014	6/25/2014	12	12	28	Accept
W4F0345	14110	Water	6/13/2014	6/25/2014	6/25/2014	12	12	28	Accept
W4F0345	14111	Water	6/13/2014	6/25/2014	6/25/2014	12	12	28	Accept
W4F0343	14112	Water	6/13/2014	6/26/2014	6/26/2014	13	13	28	Accept
W4F0343	14113	Water	6/13/2014	6/26/2014	6/27/2014	13	14	28	Accept
W4F0343	14114	Water	6/13/2014	6/26/2014	6/27/2014	13	14	28	Accept
W4F0343	14115	Water	6/13/2014	6/26/2014	6/27/2014	13	14	28	Accept
W4F0343	14116	Water	6/13/2014	6/26/2014	6/27/2014	13	14	28	Accept
I1406143	14117	Water	6/13/2014		6/18/2014		5	28	Accept
W4F0343	14118	Water	6/13/2014	6/26/2014	6/27/2014	13	14	28	Accept
W4F0349	14119	Water	6/14/2014	6/26/2014	6/26/2014	12	12	28	Accept
W4F0349	14120	Water	6/14/2014	6/26/2014	6/26/2014	12	12	28	Accept
W4F0349	14121	Water	6/14/2014	6/26/2014	6/26/2014	12	12	28	Accept
W4F0349	14122	Water	6/14/2014	6/26/2014	6/26/2014	12	12	28	Accept
W4F0349	14123	Water	6/14/2014	6/26/2014	6/26/2014	12	12	28	Accept
W4F0349	14124	Water	6/14/2014	6/26/2014	6/26/2014	12	12	28	Accept
W4F0347	14125	Water	6/14/2014	6/25/2014	6/25/2014	11	11	28	Accept
W4F0349	14126	Water	6/14/2014	6/26/2014	6/26/2014	12	12	28	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 200.8/6010B/6020 / Metals									
W4F0190	14019	Water	6/3/2014	6/13/2014	6/23/2014	10	20	180	Accept
W4F0190	14019	Water	6/3/2014	6/13/2014	6/17/2014	10	14	180	Accept
W4F0185	14020	Water	6/3/2014	6/13/2014	6/24/2014	10	21	180	Accept
W4F0185	14020	Water	6/3/2014	6/13/2014	6/17/2014	10	14	180	Accept
W4F0193	14021	Water	6/3/2014	6/13/2014	6/24/2014	10	21	180	Accept
W4F0193	14021	Water	6/3/2014	6/13/2014	6/18/2014	10	15	180	Accept
W4F0193	14022	Water	6/3/2014	6/13/2014	6/24/2014	10	21	180	Accept
W4F0193	14022	Water	6/3/2014	6/13/2014	6/18/2014	10	15	180	Accept
W4F0185	14023	Water	6/3/2014	6/13/2014	6/24/2014	10	21	180	Accept
W4F0185	14023	Water	6/3/2014	6/13/2014	6/17/2014	10	14	180	Accept
W4F0193	14024	Water	6/3/2014	6/13/2014	6/24/2014	10	21	180	Accept
W4F0193	14024	Water	6/3/2014	6/13/2014	6/18/2014	10	15	180	Accept
W4F0193	14025	Water	6/4/2014	6/13/2014	6/24/2014	9	20	180	Accept
W4F0193	14025	Water	6/4/2014	6/13/2014	6/18/2014	9	14	180	Accept
W4F0188	14026	Water	6/4/2014	6/13/2014	6/24/2014	9	20	180	Accept
W4F0188	14026	Water	6/4/2014	6/13/2014	6/18/2014	9	14	180	Accept
W4F0193	14027	Water	6/4/2014	6/13/2014	6/24/2014	9	20	180	Accept
W4F0193	14027	Water	6/4/2014	6/13/2014	6/18/2014	9	14	180	Accept
W4F0188	14028	Water	6/4/2014	6/13/2014	6/24/2014	9	20	180	Accept
W4F0188	14028	Water	6/4/2014	6/13/2014	6/18/2014	9	14	180	Accept
W4F0188	14029	Water	6/4/2014	6/13/2014	6/24/2014	9	20	180	Accept
W4F0188	14029	Water	6/4/2014	6/13/2014	6/18/2014	9	14	180	Accept
W4F0188	14030	Water	6/4/2014	6/13/2014	6/24/2014	9	20	180	Accept
W4F0188	14030	Water	6/4/2014	6/13/2014	6/18/2014	9	14	180	Accept
W4F0193	14031	Water	6/5/2014	6/13/2014	6/24/2014	8	19	180	Accept
W4F0193	14031	Water	6/5/2014	6/13/2014	6/18/2014	8	13	180	Accept
W4F0193	14032	Water	6/5/2014	6/13/2014	6/24/2014	8	19	180	Accept
W4F0193	14032	Water	6/5/2014	6/13/2014	6/18/2014	8	13	180	Accept
W4F0193	14033	Water	6/5/2014	6/13/2014	6/24/2014	8	19	180	Accept
W4F0193	14033	Water	6/5/2014	6/13/2014	6/18/2014	8	13	180	Accept
W4F0193	14034	Water	6/5/2014	6/13/2014	6/24/2014	8	19	180	Accept
W4F0193	14034	Water	6/5/2014	6/13/2014	6/18/2014	8	13	180	Accept
W4F0193	14035	Water	6/5/2014	6/13/2014	6/24/2014	8	19	180	Accept
W4F0188	14035	Water	6/5/2014	6/13/2014	6/18/2014	8	13	180	Accept
W4F0188	14036	Water	6/5/2014	6/13/2014	6/24/2014	8	19	180	Accept
W4F0188	14036	Water	6/5/2014	6/13/2014	6/18/2014	8	13	180	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 200.8/6010B/6020 / Metals									
W4F0187	14037	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0187	14037	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0187	14038	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0187	14038	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0187	14039	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0187	14039	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0187	14040	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0187	14040	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
I1406143	14041	Water	6/8/2014		7/8/2014		30	180	Accept
W4F0187	14042	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0187	14042	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0188	14043	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0188	14043	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0188	14044	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0188	14044	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0187	14045	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0187	14045	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0188	14046	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0188	14046	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0187	14047	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0187	14047	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0187	14048	Water	6/6/2014	6/13/2014	6/24/2014	7	18	180	Accept
W4F0187	14048	Water	6/6/2014	6/13/2014	6/18/2014	7	12	180	Accept
W4F0190	14049	Water	6/7/2014	6/23/2014	6/23/2014	16	16	180	Accept
W4F0190	14049	Water	6/7/2014	6/13/2014	6/17/2014	6	10	180	Accept
W4F0190	14050	Water	6/7/2014	6/23/2014	6/23/2014	16	16	180	Accept
W4F0190	14050	Water	6/7/2014	6/13/2014	6/17/2014	6	10	180	Accept
W4F0185	14051	Water	6/7/2014	6/23/2014	6/23/2014	16	16	180	Accept
W4F0185	14051	Water	6/7/2014	6/13/2014	6/17/2014	6	10	180	Accept
W4F0185	14052	Water	6/7/2014	6/23/2014	6/23/2014	16	16	180	Accept
W4F0185	14052	Water	6/7/2014	6/13/2014	6/17/2014	6	10	180	Accept
W4F0185	14053	Water	6/7/2014	6/13/2014	6/24/2014	6	17	180	Accept
W4F0185	14053	Water	6/7/2014	6/13/2014	6/17/2014	6	10	180	Accept
W4F0185	14054	Water	6/7/2014	6/13/2014	6/24/2014	6	17	180	Accept
W4F0185	14054	Water	6/7/2014	6/13/2014	6/17/2014	6	10	180	Accept
W4F0190	14055	Water	6/8/2014	6/13/2014	6/23/2014	5	15	180	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 200.8/6010B/6020 / Metals									
W4F0190	14055	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0190	14056	Water	6/8/2014	6/13/2014	6/23/2014	5	15	180	Accept
W4F0190	14056	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0185	14057	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0185	14057	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0190	14058	Water	6/8/2014	6/13/2014	6/23/2014	5	15	180	Accept
W4F0190	14058	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0190	14059	Water	6/8/2014	6/13/2014	6/23/2014	5	15	180	Accept
W4F0190	14059	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0185	14060	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0185	14060	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
I1406143	14061	Water	6/8/2014		7/8/2014		30	180	Accept
W4F0192	14062	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0192	14062	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0192	14063	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0192	14063	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0192	14064	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0192	14064	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0192	14065	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0192	14065	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0192	14066	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0192	14066	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0192	14067	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0192	14067	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
I1406143	14068	Water	6/8/2014		7/8/2014		30	180	Accept
W4F0192	14069	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0192	14069	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
I1406143	14070	Water	6/8/2014		7/8/2014		30	180	Accept
W4F0192	14071	Water	6/8/2014	6/13/2014	6/24/2014	5	16	180	Accept
W4F0192	14071	Water	6/8/2014	6/13/2014	6/17/2014	5	9	180	Accept
W4F0190	14072	Water	6/9/2014	6/13/2014	6/23/2014	4	14	180	Accept
W4F0190	14072	Water	6/9/2014	6/13/2014	6/17/2014	4	8	180	Accept
W4F0190	14073	Water	6/9/2014	6/13/2014	6/23/2014	4	14	180	Accept
W4F0190	14073	Water	6/9/2014	6/13/2014	6/17/2014	4	8	180	Accept
W4F0347	14074	Water	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0347	14074	Water	6/10/2014	6/25/2014	7/14/2014	15	34	180	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 200.8/6010B/6020 / Metals									
W4F0350	14075	Water	6/10/2014	6/25/2014	7/1/2014	15	21	180	Accept
W4F0350	14075	Water	6/10/2014	6/25/2014	7/7/2014	15	27	180	Accept
W4F0347	14076	Water	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0347	14076	Water	6/10/2014	6/25/2014	7/14/2014	15	34	180	Accept
I1406143	14077	Water	6/16/2014		7/8/2014		22	180	Accept
W4F0348	14078	Water	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0348	14078	Water	6/10/2014	6/25/2014	7/7/2014	15	27	180	Accept
W4F0348	14078	Water	6/10/2014	7/1/2014	7/1/2014	21	21	180	Accept
W4F0350	14079	Water	6/10/2014	6/25/2014	7/1/2014	15	21	180	Accept
W4F0350	14079	Water	6/10/2014	6/25/2014	7/7/2014	15	27	180	Accept
W4F0350	14080	Water	6/10/2014	6/25/2014	7/1/2014	15	21	180	Accept
W4F0350	14080	Water	6/10/2014	6/25/2014	7/7/2014	15	27	180	Accept
W4F0350	14081	Water	6/10/2014	6/25/2014	7/1/2014	15	21	180	Accept
W4F0350	14081	Water	6/10/2014	6/25/2014	7/7/2014	15	27	180	Accept
W4F0347	14082	Water	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0347	14082	Water	6/10/2014	6/25/2014	7/14/2014	15	34	180	Accept
W4F0347	14083	Water	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347	14083	Water	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0347	14084	Water	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347	14084	Water	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0350	14085	Water	6/11/2014	6/25/2014	7/1/2014	14	20	180	Accept
W4F0350	14085	Water	6/11/2014	6/25/2014	7/7/2014	14	26	180	Accept
W4F0347	14086	Water	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347	14086	Water	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0350	14087	Water	6/11/2014	6/25/2014	7/1/2014	14	20	180	Accept
W4F0350	14087	Water	6/11/2014	6/25/2014	7/7/2014	14	26	180	Accept
W4F0347	14088	Water	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347	14088	Water	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0347	14088	Water	6/11/2014	7/1/2014	7/1/2014	20	20	180	Accept
W4F0347	14088	Water	6/11/2014	7/1/2014	7/9/2014	20	28	180	Accept
W4F0347	14089	Water	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347	14089	Water	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0350	14090	Water	6/11/2014	6/25/2014	7/1/2014	14	20	180	Accept
W4F0350	14090	Water	6/11/2014	6/25/2014	7/7/2014	14	26	180	Accept
W4F0347	14091	Water	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347	14091	Water	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 200.8/6010B/6020 / Metals									
W4F0350	14092	Water	6/11/2014	6/25/2014	7/1/2014	14	20	180	Accept
W4F0350	14092	Water	6/11/2014	6/25/2014	7/7/2014	14	26	180	Accept
W4F0348	14093	Water	6/12/2014	7/1/2014	7/1/2014	19	19	180	Accept
W4F0348	14093	Water	6/12/2014	6/25/2014	6/30/2014	13	18	180	Accept
W4F0348	14093	Water	6/12/2014	6/25/2014	7/7/2014	13	25	180	Accept
I1406143	14094	Water	6/12/2014		7/8/2014		26	180	Accept
I1406143	14094	Water	6/12/2014		7/7/2014		25	180	Accept
W4F0346	14095	Water	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346	14095	Water	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346	14095	Water	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346	14096	Water	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346	14096	Water	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346	14096	Water	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346	14097	Water	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346	14097	Water	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346	14097	Water	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346	14098	Water	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346	14098	Water	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346	14098	Water	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0348	14099	Water	6/12/2014	7/1/2014	7/1/2014	19	19	180	Accept
W4F0348	14099	Water	6/12/2014	6/25/2014	6/30/2014	13	18	180	Accept
W4F0348	14099	Water	6/12/2014	6/25/2014	7/7/2014	13	25	180	Accept
W4F0348	14099	Water	6/12/2014	6/25/2014	7/8/2014	13	26	180	Accept
W4F0348	14100	Water	6/12/2014	7/1/2014	7/1/2014	19	19	180	Accept
W4F0348	14100	Water	6/12/2014	6/25/2014	6/30/2014	13	18	180	Accept
W4F0348	14100	Water	6/12/2014	6/25/2014	7/7/2014	13	25	180	Accept
W4F0346	14101	Water	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346	14101	Water	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346	14101	Water	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0348	14102	Water	6/12/2014	7/1/2014	7/1/2014	19	19	180	Accept
W4F0348	14102	Water	6/12/2014	6/25/2014	6/30/2014	13	18	180	Accept
W4F0348	14102	Water	6/12/2014	6/25/2014	7/7/2014	13	25	180	Accept
W4F0348	14102	Water	6/12/2014	6/25/2014	7/8/2014	13	26	180	Accept
W4F0348	14103	Water	6/12/2014	7/1/2014	7/1/2014	19	19	180	Accept
W4F0348	14103	Water	6/12/2014	6/25/2014	6/30/2014	13	18	180	Accept
W4F0348	14103	Water	6/12/2014	6/25/2014	7/7/2014	13	25	180	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 200.8/6010B/6020 / Metals									
W4F0348	14103	Water	6/12/2014	6/25/2014	7/8/2014	13	26	180	Accept
W4F0350	14104	Water	6/12/2014	6/25/2014	7/1/2014	13	19	180	Accept
W4F0350	14104	Water	6/12/2014	6/25/2014	7/7/2014	13	25	180	Accept
W4F0345	14105	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0345	14105	Water	6/13/2014	6/23/2014	6/29/2014	10	16	180	Accept
W4F0345	14105	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0345	14106	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0345	14106	Water	6/13/2014	6/23/2014	6/29/2014	10	16	180	Accept
W4F0345	14106	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0345	14107	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0345	14107	Water	6/13/2014	6/23/2014	6/29/2014	10	16	180	Accept
W4F0345	14107	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0345	14108	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0345	14108	Water	6/13/2014	6/23/2014	6/29/2014	10	16	180	Accept
W4F0345	14108	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0345	14109	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0345	14109	Water	6/13/2014	6/23/2014	6/29/2014	10	16	180	Accept
W4F0345	14109	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0345	14110	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0345	14110	Water	6/13/2014	6/23/2014	6/29/2014	10	16	180	Accept
W4F0345	14110	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0345	14111	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0345	14111	Water	6/13/2014	6/23/2014	6/29/2014	10	16	180	Accept
W4F0345	14111	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0343	14112	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0343	14112	Water	6/13/2014	6/23/2014	6/30/2014	10	17	180	Accept
W4F0343	14112	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0343	14113	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0343	14113	Water	6/13/2014	6/23/2014	6/30/2014	10	17	180	Accept
W4F0343	14113	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0343	14114	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0343	14114	Water	6/13/2014	6/23/2014	6/30/2014	10	17	180	Accept
W4F0343	14114	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0343	14115	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0343	14115	Water	6/13/2014	6/23/2014	6/30/2014	10	17	180	Accept
W4F0343	14115	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
EPA 200.8/6010B/6020 / Metals									
W4F0343	14116	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0343	14116	Water	6/13/2014	6/23/2014	6/30/2014	10	17	180	Accept
W4F0343	14116	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
I1406143	14117	Water	6/13/2014		7/7/2014		24	180	Accept
I1406143	14117	Water	6/13/2014		7/8/2014		25	180	Accept
W4F0343	14118	Water	6/13/2014	6/30/2014	6/30/2014	17	17	180	Accept
W4F0343	14118	Water	6/13/2014	6/23/2014	6/30/2014	10	17	180	Accept
W4F0343	14118	Water	6/13/2014	6/23/2014	7/1/2014	10	18	180	Accept
W4F0349	14119	Water	6/14/2014	7/1/2014	7/1/2014	17	17	180	Accept
W4F0349	14119	Water	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
W4F0349	14119	Water	6/14/2014	6/25/2014	7/8/2014	11	24	180	Accept
W4F0349	14120	Water	6/14/2014	7/1/2014	7/1/2014	17	17	180	Accept
W4F0349	14120	Water	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
W4F0349	14120	Water	6/14/2014	6/25/2014	7/8/2014	11	24	180	Accept
W4F0349	14121	Water	6/14/2014	7/1/2014	7/1/2014	17	17	180	Accept
W4F0349	14121	Water	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
W4F0349	14121	Water	6/14/2014	6/25/2014	7/8/2014	11	24	180	Accept
W4F0349	14122	Water	6/14/2014	7/1/2014	7/1/2014	17	17	180	Accept
W4F0349	14122	Water	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
W4F0349	14122	Water	6/14/2014	6/25/2014	7/8/2014	11	24	180	Accept
W4F0349	14123	Water	6/14/2014	7/1/2014	7/1/2014	17	17	180	Accept
W4F0349	14123	Water	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
W4F0349	14123	Water	6/14/2014	6/25/2014	7/8/2014	11	24	180	Accept
W4F0349	14124	Water	6/14/2014	7/1/2014	7/1/2014	17	17	180	Accept
W4F0349	14124	Water	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
W4F0349	14124	Water	6/14/2014	6/25/2014	7/8/2014	11	24	180	Accept
W4F0347	14125	Water	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
W4F0347	14125	Water	6/14/2014	6/25/2014	7/14/2014	11	30	180	Accept
W4F0349	14126	Water	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
W4F0349	14126	Water	6/14/2014	6/25/2014	7/8/2014	11	24	180	Accept

TABLE J-5.3: Analytical Holding Time Summary

SDG #	Sample ID	Matrix	Collection date	Extraction date	Analysis date	Hold Days to Extraction	Hold Days to Analysis	Required	Status
SM 5310B / Total Organic Carbon									
W4F0188	TW58	Water	6/4/2014	6/20/2014	6/20/2014	16	16	28	Accept
W4F0347	14088	Water	6/11/2014	6/20/2014	6/20/2014	9	9	28	Accept
SM 2540 D / Total Suspended Solids									
W4F0188	TW58	Water	6/4/2014	6/11/2014	6/11/2014	7	7	7	Accept
W4F0347	14088	Water	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept

TABLE J-5.4: Field Duplicate Comparison Summary**SDG: W4F0193/W4F0185****DATE VALIDATED: September 19, 2014**

FIELD SAMPLE ID =		14022	TW-35		
BLIND DUPLICATE ID =		14023	TW-35		
COMPOUND/ ANALYTE GENERAL CHEMISTRY (mg/L)		SAMPLE RESULT	DUPLICATE RESULT	RPD	STATUS
		14022	14023		
		0.304	0.11		93.7 J - Advisory only
		1120	1170		4.4 Accept
		-1	U -1		0.0 NA
		30.8	D 30.5		1.0 Accept
		-0.1	U -0.5		-133.3 NA
		1230000	1220000		0.8 Accept
		-0.05	U -0.05		0.0 NA
		0.412	0.579		33.7 J - Advisory only
		140	D 138		1.4 Accept
		1120	1170		4.4 Accept
		1290	1250		3.1 Accept
<hr/>					
METALS - TOTAL (µg/L)		14022	14023		
		-0.68	U -0.68		0.0 NA
		57700	56300		2.5 Accept
		265000	261000		1.5 Accept
		161	158		1.9 Accept
		-2.7	U -2.7		0.0 NA
		20700	19700		5.0 Accept
		-0.52	U -0.52		0.0 NA
		46400	46000		0.9 Accept
		-1.7	U -1.7		0.0 NA
		-3.2	U -3.2		0.0 NA

Notes:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

TABLE J-5.4: Field Duplicate Comparison Summary**SDG: W4F0193/W4F0188****DATE VALIDATED: September 19, 2014**

FIELD SAMPLE ID =		14025	TW-38			
BLIND DUPLICATE ID =		14026	TW-38			
COMPOUND/ ANALYTE		SAMPLE RESULT	DUPLICATE RESULT		RPD	STATUS
		14025	14026			
Ammonia as N		0.043	-0.03	U	1123.1	NA
Bicarbonate		379	390		2.9	Accept
Carbonate		-1	U	-1	U	NA
Chloride		37.5	D	36.6	D	2.4
Fluoride		0.33		0.37		Accept
Hardness		465000		467000		0.4
Nitrate/Nitrite as N		3.91		3.82	D	2.3
Phosphorus		0.121		0.117		Accept
Sulfate as SO4		54	D	53.2	D	1.5
Total Alkalinity		379		390		2.9
Total Diss. Solids		551		540		2.0
<hr/>						
METALS - TOTAL (µg/L)		14025	14026			
		-0.68	U	-0.68	U	0.0
Cadmium		113000		113000		0.0
Calcium		44600		44900		0.7
Magnesium		-1.3	U	-1.3	U	0.0
Manganese		53.5		53.5		0.0
Molybdenum		3500		3520		0.6
Potassium		3.6		3.7		2.7
Selenium		21200		21200		0.0
Sodium		143		142		0.7
Vanadium		-3.2	U	-3.2	U	0.0
Zinc						NA

Notes:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

TABLE J-5.4: Field Duplicate Comparison Summary

SDG: W4F0187		DATE VALIDATED: September 19, 2014				
FIELD SAMPLE ID =	14038	TW-11				
BLIND DUPLICATE ID =	14039	TW-11				
COMPOUND/ ANALYTE		SAMPLE RESULT	DUPLICATE RESULT		RPD	STATUS
GENERAL CHEMISTRY (mg/L)		14038	14039			
Ammonia as N	6.19	D	6.39	D	3.2	Accept
Bicarbonate	412		416		1.0	Accept
Carbonate	-1	U	-1	U	0.0	NA
Chloride	25	D	25	D	0.0	Accept
Fluoride	0.26		0.27		3.8	Accept
Hardness	399000		401000		0.5	Accept
Nitrate/Nitrite as N	4.31		4.14		4.0	Accept
Phosphorus	0.058		0.061		5.0	Accept
Sulfate as SO4	77	D	77.2	D	0.3	Accept
Total Alkalinity	412		416		1.0	Accept
Total Diss. Solids	566		562		0.7	Accept
METALS - TOTAL (µg/L)		14038	14039			
Cadmium	-0.68	U	-0.68	U	0.0	NA
Calcium	98500		98800		0.3	Accept
Magnesium	37300		37300		0.0	Accept
Manganese	-1.3	U	-1.3	U	0.0	NA
Molybdenum	-2.7	U	-2.7	U	0.0	NA
Potassium	8940		9070		1.4	Accept
Selenium	2.2		2.1		4.7	Accept
Sodium	51500		51600		0.2	Accept
Vanadium	-1.7	U	-1.7	U	0.0	NA
Zinc	-3.2	U	-3.2	U	0.0	NA

Notes:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

TABLE J-5.4: Field Duplicate Comparison Summary

SDG: W4F0190/W4F0185		DATE VALIDATED: September 19, 2014					
FIELD SAMPLE ID =	14059	TW-33					
BLIND DUPLICATE ID =	14060	TW-33					
COMPOUND/ ANALYTE		SAMPLE RESULT		DUPLICATE RESULT		RPD	STATUS
GENERAL CHEMISTRY (mg/L)		14059		14060			
Ammonia as N	-0.03	U	-0.03	U	0.0		NA
Bicarbonate	422		419		0.7		Accept
Carbonate	-1	U	-1	U	0.0		NA
Chloride	12.5	D	13.1	D	4.7		Accept
Fluoride	0.24		0.3		22.2		NA
Hardness	442000		437000		1.1		Accept
Nitrate/Nitrite as N	2.34		2.3		1.7		Accept
Phosphorus	0.142		0.152		6.8		Accept
Sulfate as SO4	39.7		39.9		0.5		Accept
Total Alkalinity	422		419		0.7		Accept
Total Diss. Solids	483		483		0.0		Accept
METALS - TOTAL (µg/L)		14059		14060			
Cadmium	-0.68	U	-0.68	U	0.0		NA
Calcium	111000		111000		0.0		Accept
Magnesium	39900		38900		2.5		Accept
Manganese	2.8	J	3.1	J	10.2		NA
Molybdenum	28.3		29.4		3.8		Accept
Potassium	2440		2260		7.7		Accept
Selenium	2.2		2.2		0.0		Accept
Sodium	12900		13000		0.8		Accept
Vanadium	367		369		0.5		Accept
Zinc	7.9	J	5.6	J	34.1		NA

Notes:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

TABLE J-5.4: Field Duplicate Comparison Summary**SDG: W4F0192****DATE VALIDATED: September 19, 2014**

FIELD SAMPLE ID =		14063	TW-62		
BLIND DUPLICATE ID =		14064	TW-62		
COMPOUND/ ANALYTE		SAMPLE RESULT	DUPLICATE RESULT	RPD	STATUS
GENERAL CHEMISTRY (mg/L)	14063	14064			
Ammonia as N	-0.03	U	0.033	4200.0	NA
Bicarbonate	611		611	0.0	Accept
Carbonate	-1	U	-1	U	NA
Chloride	78.8	D	79.5	D	0.9
Fluoride	0.73		0.74	1.4	Accept
Hardness	984000		973000	1.1	Accept
Nitrate/Nitrite as N	6.98	D	6.99	D	0.1
Phosphorus	0.193		0.092	70.9	J - Advisory only
Sulfate as SO4	342	D	343	D	0.3
Total Alkalinity	611		611	0.0	Accept
Total Diss. Solids	1260		1270	0.8	Accept
<hr/>					
METALS - TOTAL (µg/L)	14063	14064			
Cadmium	-0.68	U	-0.68	U	0.0
Calcium	193000		191000		1.0
Magnesium	122000		120000		1.7
Manganese	-1.3	U	-1.3	U	0.0
Molybdenum	6.4	J	6.4	J	0.0
Potassium	10900		10900		0.0
Selenium	135		138		2.2
Sodium	58600		58400		0.3
Vanadium	-1.7	U	-1.7	U	0.0
Zinc	3.7	J	4.5	J	19.5

Notes:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

TABLE J-5.4: Field Duplicate Comparison Summary

SDG: W4F0192		DATE VALIDATED: September 19, 2014				
		FIELD SAMPLE ID = 14065	TW-70			
		BLIND DUPLICATE ID = 14066	TW-70			
COMPOUND/ ANALYTE		SAMPLE RESULT	DUPPLICATE RESULT		RPD	STATUS
GENERAL CHEMISTRY (mg/L)		14065	14066			
Ammonia as N		-0.03	U	0.035	2600.0	NA
Bicarbonate		815		805	1.2	Accept
Carbonate		-1	U	-1	U	0.0
Chloride		59.7	D	59.9	D	0.3
Fluoride		0.11		0.11		0.0
Hardness		1090000		1110000		1.8
Nitrate/Nitrite as N		4.73		4.74		0.2
Phosphorus		0.112		0.11		1.8
Sulfate as SO4		257	D	258	D	0.4
Total Alkalinity		815		805		1.2
Total Diss. Solids		1220		1310		7.1
METALS - TOTAL (µg/L)		14065	14066			
Cadmium		-0.68	U	-0.68	U	0.0
Calcium		211000		213000		0.9
Magnesium		137000		139000		1.4
Manganese		1.7	J	2.4	J	34.1
Molybdenum		3.8	J	-2.7	U	1181.8
Potassium		10200		10300		1.0
Selenium		88		88		0.0
Sodium		44500		45200		1.6
Vanadium		-1.7	U	-1.7	U	0.0
Zinc		-3.2	U	-3.2	U	0.0

Notes:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

TABLE J-5.4: Field Duplicate Comparison Summary

SDG: W4F0348		DATE VALIDATED: September 19, 2014				
FIELD SAMPLE ID = 14099 BLIND DUPLICATE ID = 14100		SW Spring at Government Dam Road SW Spring at Government Dam Road				
COMPOUND/ ANALYTE		SAMPLE RESULT	DUPLICATE RESULT		RPD	STATUS
		14099	14100			
Ammonia as N		0.035	-0.03	U	2600.0	NA
Bicarbonate		878	886		0.9	Accept
Carbonate		-1	U	-1	U	NA
Chloride		15.9	D	16.3	D	2.5
Fluoride		1.03		1.01		Accept
Hardness		834000		838000		0.5
Nitrate/Nitrite as N		1.89		1.97		Accept
Phosphorus		0.193		0.189		Accept
Sulfate as SO4		57.1	D	57.1	D	0.0
Total Alkalinity		878		886		0.9
Total Diss. Solids		920		916		0.4
<hr/>						
METALS - TOTAL (µg/L)		14099	14100			
Cadmium		4.4	4.5		2.2	Accept
Calcium		117000	114000		2.6	Accept
Magnesium		132000	134000		1.5	Accept
Manganese		37.7	37.8		0.3	Accept
Molybdenum		11.3	10.7		5.5	Accept
Potassium		11700	11400		2.6	Accept
Selenium		20.1	20.1		0.0	Accept
Sodium		39000	36900		5.5	Accept
Vanadium		4.4	J	4.5	J	2.2
Zinc		69.2		71.3		3.0
<hr/>						
METALS - DISSOLVED (µg/L)		14099	14100			
Cadmium		3.6	3.5		2.8	Accept
Calcium		125000	125000		0.0	Accept
Magnesium		137000	136000		0.7	Accept
Manganese		41.2	41.1		0.2	Accept
Molybdenum		15.2	14.9		2.0	Accept
Potassium		12600	12600		0.0	Accept
Selenium		19.6	21.7		10.2	Accept
Sodium		39100	39100		0.0	Accept
Vanadium		3.3	J	3.2	J	3.1
Zinc		65.3		65.5		0.3

Notes:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

TABLE J-5.4: Field Duplicate Comparison Summary

SDG: W4F0345		DATE VALIDATED: September 19, 2014						
FIELD SAMPLE ID =	14107	Non-Contact Cooling Water 1						
BLIND DUPLICATE ID =	14108	Non-Contact Cooling Water 2						
BLIND TRIPPLICATE ID =	14109	Non-Contact Cooling Water 3						
COMPOUND/ ANALYTE	SAMPLE RESULT	DUPLICATE RESULT		TRIPPLICATE RESULT		RSD	STATUS	
GENERAL CHEMISTRY (mg/L)	14107	14108		14109				
Ammonia as N	0.032	-0.03	U	-0.03	U	-383.5	NA	
Bicarbonate	434	435		431		0.5	Accept	
Carbonate	20.1	18.9		22.1		7.9	Accept	
Chloride	487	D	494	D	491	D	0.7	Accept
Fluoride	-0.5	U	-0.5	U	-0.5	U	0.0	NA
Hardness	557000	560000		559000		0.3	Accept	
Nitrate/Nitrite as N	3.71	3.66		3.7		0.7	Accept	
Phosphorus	0.548	0.559		0.563		1.4	Accept	
Sulfate as SO4	134	D	134	D	135	D	0.4	Accept
Total Alkalinity	454	454		454		0.0	Accept	
Total Diss. Solids	1350	1350		1320		1.3	Accept	
METALS - TOTAL (µg/L)	14107	14108		14109				
Cadmium	5.2	5.5		5.8		5.5	Accept	
Calcium	125000	126000		126000		0.5	Accept	
Magnesium	59400	59800		59500		0.3	Accept	
Manganese	-1.3	U	-1.3	U	-1.3	U	0.0	NA
Molybdenum	32.2	32.4		32.6		0.6	Accept	
Potassium	6730	6780		6750		0.4	Accept	
Selenium	12.7	13.2		12.6		2.5	Accept	
Sodium	304000	308000		306000		0.7	Accept	
Vanadium	50.1	49.9		50.5		0.6	Accept	
Zinc	16.2	15.7		16.2		1.8	Accept	
METALS - DISSOLVED (µg/L)	14107	14108		14109				
Cadmium	5.5	5.2		5.1		4.0	Accept	
Calcium	127000	122000		126000		2.1	Accept	
Magnesium	60100	58000		59700		1.9	Accept	
Manganese	-1.3	U	-1.3	U	-1.3	U	0.0	NA
Molybdenum	24.9	24.2		22.6		4.9	Accept	
Potassium	6500	6200		6440		2.5	Accept	
Selenium	12.4	13.4		12.5		4.3	Accept	
Sodium	331000	321000		328000		1.6	Accept	
Vanadium	52.3	51.2		51.2		1.2	Accept	
Zinc	23.5	22		22.6		3.3	Accept	

Notes:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

TABLE J-5.4: Field Duplicate Comparison Summary

SDG: W4F0349		DATE VALIDATED: September 19, 2014				
FIELD SAMPLE ID = 14121 BLIND DUPLICATE ID = 14122		SC-08 Soda at Octagon Park SC-08 Soda at Octagon Park				
COMPOUND/ ANALYTE		SAMPLE RESULT	DUPLICATE RESULT		RPD	STATUS
		14121	14122			
Ammonia as N	-0.03	U	-0.03	U	0.0	NA
Bicarbonate	497		498		0.2	Accept
Carbonate	-1	U	-1	U	0.0	NA
Chloride	44.2	D	42.6	D	3.7	Accept
Fluoride	0.34		0.35		2.9	Accept
Hardness	492000		477000		3.1	Accept
Nitrate/Nitrite as N	0.384		0.386		0.5	Accept
Phosphorus	0.268		0.239		11.4	Accept
Sulfate as SO4	48.9	D	46.7	D	4.6	Accept
Total Alkalinity	497		498		0.2	Accept
Total Diss. Solids	596		600		0.7	Accept
METALS - TOTAL (µg/L)		14121	14122			
Cadmium	1.2	J	0.81	J	38.8	NA
Calcium	74900		72400		3.4	Accept
Magnesium	74000		71800		3.0	Accept
Manganese	201		152		27.8	J - Advisory only
Molybdenum	-2.7	U	-2.7	U	0.0	NA
Potassium	8220		7780		5.5	Accept
Selenium	1.5	J	1.4	J	6.9	Accept
Sodium	45700		43400		5.2	Accept
Vanadium	8.2		6.8		18.7	Accept
Zinc	13.6		10.5		25.7	NA
METALS - DISSOLVED (µg/L)		14121	14122			
Cadmium	-0.69	U	-0.69	U	0.0	NA
Calcium	78400		78000		0.5	Accept
Magnesium	75900		75300		0.8	Accept
Manganese	96.3		94.8		1.6	Accept
Molybdenum	3	J	2.9	J	3.4	NA
Potassium	8630		8530		1.2	Accept
Selenium	1.4	J	1.4	J	0.0	NA
Sodium	45800		45800		0.0	Accept
Vanadium	3.5	J	3.3	J	5.9	NA
Zinc	-3.2	U	-3.2	U	0.0	NA

Notes:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

Table J-5.5: Laboratory Split Comparison / SVL Analytical and IAS EnviroChem Laboratories

PROJECT: 913-1101-004-001-IF
SDG: W4F0187/I406143

DATE VALIDATED: September 19, 2014

FIELD SAMPLE ID =	14040	TW-12			
SPLIT ID =	14041	TW-12			
COMPOUND/ ANALYTE	SAMPLE RESULT	IAS SPLIT RESULT		RPD	STATUS
GENERAL CHEMISTRY (mg/L)	14040	14041			
Ammonia as N	6.92	D	2.81	84.5	J - Advisory only
Bicarbonate	397				NA
Carbonate	-1	U			NA
Chloride	22.5	D	25	10.5	Accept
Fluoride	0.31		0.2	43.1	NA
Hardness	410000		425000	3.6	Accept
Nitrate/Nitrite as N	6.32	D	5.93	6.4	Accept
Phosphorus	0.549		0.53	3.5	Accept
Sulfate as SO4	79.2	D	86	8.2	Accept
Total Alkalinity	397		370	7.0	Accept
Total Diss. Solids	522		556	6.3	Accept
METALS - TOTAL (µg/L)	14040	14041			
Cadmium	-0.68	U	1	1050.0	NA
Calcium	102000		105600	3.5	Accept
Magnesium	37700		39190	3.9	Accept
Manganese	17.4		18	3.4	Accept
Molybdenum	382		370	3.2	Accept
Potassium	6320		5940	6.2	Accept
Selenium	1.4	J	1	33.3	NA
Sodium	41500		40550	2.3	Accept
Vanadium	652		688	5.4	Accept
Zinc	-3.2	U	1	-381.8	NA

Note:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

Table J-5.5: Laboratory Split Comparison / SVL Analytical and IAS EnviroChem Laboratories

PROJECT: 913-1101-004-001-IF
SDG: W4F0190/W4F0185/I406143

DATE VALIDATED: September 19, 2014

FIELD SAMPLE ID =	14059	TW-33					
BLIND DUPLICATE ID =	14060	TW-33					
SPLIT ID =	14061	TW-33					
COMPOUND/ ANALYTE	SAMPLE RESULT	DUPLICATE RESULT		IAS SPLIT RESULT		RSD	STATUS
GENERAL CHEMISTRY (mg/L)	14059	14060		14061			
Ammonia as N	-0.03	U	-0.03	U	0.05	U	-1385.6 NA
Bicarbonate	422		419				0.5 Accept
Carbonate	-1	U	-1	U			0.0 Accept
Chloride	12.5	D	13.1	D	12		4.4 Accept
Fluoride	0.24		0.3		0.2		20.4 NA
Hardness	442000		437000		447000		1.1 Accept
Nitrate/Nitrite as N	2.34		2.3		1.95		9.8 Accept
Phosphorus	0.142		0.152		0.17		9.2 Accept
Sulfate as SO4	39.7		39.9		36		5.7 Accept
Total Alkalinity	422		419		410		1.5 Accept
Total Diss. Solids	483		483		484		0.1 Accept
METALS - TOTAL (µg/L)	14059	14060		14061			
Cadmium	-0.68	U	-0.68	U	1	U	-808.3 NA
Calcium	111000		111000		113900		1.5 Accept
Magnesium	39900		38900		39590		1.3 Accept
Manganese	2.8	J	3.1	J	4		18.9 NA
Molybdenum	28.3		29.4		26		6.2 Accept
Potassium	2440		2260		2320		3.9 Accept
Selenium	2.2		2.2		2		5.4 Accept
Sodium	12900		13000		13110		0.8 Accept
Vanadium	367		369		391		3.5 Accept
Zinc	7.9	J	5.6	J	8		18.9 NA

Note:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

Table J-5.5: Laboratory Split Comparison / SVL Analytical and IAS EnviroChem Laboratories

PROJECT: 913-1101-004-001-IF
SDG: W4F0192/I406143

DATE VALIDATED: September 19, 2014

FIELD SAMPLE ID =		14067	TW-55		RPD	STATUS
SPLIT ID =		14068	TW-55			
COMPOUND/ ANALYTE		SAMPLE RESULT	IAS SPLIT RESULT			
GENERAL CHEMISTRY (mg/L)		14067	14068			
Ammonia as N		0.037	0.05	U	29.9	NA
Bicarbonate		639				NA
Carbonate		-1	U			NA
Chloride		51.7	D	37	33.1	J - Advisory only
Fluoride		0.7		0.3	80.0	J - Advisory only
Hardness		851000		827000	2.9	Accept
Nitrate/Nitrite as N		4.26		3.45	21.0	J - Advisory only
Phosphorus		0.111		0.14	23.1	J - Advisory only
Sulfate as SO4		171	D	190	10.5	Accept
Total Alkalinity		639		660	3.2	Accept
Total Diss. Solids		1000		970	3.0	Accept
<hr/>						
METALS - TOTAL (µg/L)		14067	14068			
Cadmium		-0.68	U	1	U	1050.0
Calcium		170000		167100		1.7
Magnesium		104000		99680		4.2
Manganese		-1.3	U	1	U	-1533.3
Molybdenum		-2.7	U	2		-1342.9
Potassium		9390		8890		5.5
Selenium		31		29		6.7
Sodium		35800		35060		2.1
Vanadium		-1.7	U	2		2466.7
Zinc		-3.2	U	25		258.7

Note:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

Table J-5.5: Laboratory Split Comparison / SVL Analytical and IAS EnviroChem Laboratories

PROJECT: 913-1101-004-001-IF
SDG: W4F0192/I406143

DATE VALIDATED: September 19, 2014

FIELD SAMPLE ID =		14069	TW-54		RPD	STATUS
SPLIT ID =		14070	TW-54			
COMPOUND/ ANALYTE		SAMPLE RESULT	IAS SPLIT RESULT			
GENERAL CHEMISTRY (mg/L)		14069	14070			
Ammonia as N	-0.03	U	0.05	U	800.0	NA
Bicarbonate	484					NA
Carbonate	-1	U				NA
Chloride	135	D	164		19.4	Accept
Fluoride	2.33		1.6		37.2	J - Advisory only
Hardness	1120000		1175000		4.8	Accept
Nitrate/Nitrite as N	9.62	D	9.24		4.0	Accept
Phosphorus	0.215		0.22		2.3	Accept
Sulfate as SO4	630	D	495		24.0	J - Advisory only
Total Alkalinity	484		500		3.3	Accept
Total Diss. Solids	1590		1700		6.7	Accept
<hr/>						
METALS - TOTAL (µg/L)		14069	14070			
Cadmium	2.4		3		22.2	NA
Calcium	221000		221200		0.1	Accept
Magnesium	138000		151500		9.3	Accept
Manganese	-1.3	U	1	U	-1533.3	NA
Molybdenum	43.5		40		8.4	Accept
Potassium	21200		20280		4.4	Accept
Selenium	377		355		6.0	Accept
Sodium	99900		97360		2.6	Accept
Vanadium	2.9	J	5		53.2	NA
Zinc	89.9		81		10.4	Accept

Note:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

Table J-5.5: Laboratory Split Comparison / SVL Analytical and IAS EnviroChem Laboratories

PROJECT: 913-1101-004-001-IF
SDG: W4F0347/I406143

DATE VALIDATED: September 19, 2014

FIELD SAMPLE ID =		14076	TW-67		RPD	STATUS
SPLIT ID =		14077	TW-67			
COMPOUND/ ANALYTE		SAMPLE RESULT	IAS SPLIT RESULT			
GENERAL CHEMISTRY (mg/L)		14076	14077			
Ammonia as N		2.8	D	2.47	12.5	Accept
Bicarbonate		391				NA
Carbonate		-1	U			NA
Chloride		26.8	D	30	11.3	Accept
Fluoride		0.43		0.2	73.0	NA
Hardness		458000		443000	3.3	Accept
Nitrate/Nitrite as N		4.05		7.66	61.7	J - Advisory only
Phosphorus		0.368		0.38	3.2	Accept
Sulfate as SO4		89.6	D	93	3.7	Accept
Total Alkalinity		391		400	2.3	Accept
Total Diss. Solids		554		584	5.3	Accept
<hr/>						
METALS - TOTAL (µg/L)		14076	14077			
Cadmium		-0.68	U	1	U	1050.0
Calcium		110000		108600		1.3
Magnesium		44400		41870		5.9
Manganese		11.9		12		0.8
Molybdenum		323		298		8.1
Potassium		6140		5800		5.7
Selenium		3.5		4		13.3
Sodium		44100		40960		7.4
Vanadium		252		253		0.4
Zinc		-3.2	U	1	U	-381.8

Note:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

Table J-5.5: Laboratory Split Comparison / SVL Analytical and IAS EnviroChem Laboratories

PROJECT: 913-1101-004-001-IF
SDG: W4F0348/I406143

DATE VALIDATED: September 19, 2014

FIELD SAMPLE ID =		14093	Mormon A Spring		
SPLIT ID =		14094	Mormon A Spring		
COMPOUND/ ANALYTE		SAMPLE RESULT	IAS SPLIT RESULT	RPD	STATUS
GENERAL CHEMISTRY (mg/L)		14093	14094		
Ammonia as N	-0.03	U	0.05	U	800.0
Bicarbonate	603				NA
Carbonate	-1	U			NA
Chloride	96.1	D	118	20.5	J - Advisory only
Fluoride	2.98	D	3.5	16.0	Accept
Hardness	957000		1041000	8.4	Accept
Nitrate/Nitrite as N	2.07		5.63	92.5	J - Advisory only
Phosphorus	0.335		0.35	4.4	Accept
Sulfate as SO4	404	D	314	25.1	J - Advisory only
Total Alkalinity	603		610	1.2	Accept
Total Diss. Solids	1350		1362	0.9	Accept
<hr/>					
METALS - TOTAL (µg/L)		14093	14094		
Cadmium	14.1		15	6.2	Accept
Calcium	149000		168100	12.0	Accept
Magnesium	142000		151200	6.3	Accept
Manganese	-1.3	U	1	U	-1533.3
Molybdenum	54.1		54	0.2	Accept
Potassium	22000		22570	2.6	Accept
Selenium	280		320	13.3	Accept
Sodium	86600		84880	2.0	Accept
Vanadium	15.3		16	4.5	Accept
Zinc	216		225	4.1	Accept
<hr/>					
METALS - DISSOLVED (µg/L)		14093	14094		
Cadmium	14.3		15	4.8	Accept
Calcium	161000		156700	2.7	Accept
Magnesium	146000		145200	0.5	Accept
Manganese	-1.3	U	1	U	-1533.3
Molybdenum	59.1		50	16.7	Accept
Potassium	22900		21400	6.8	Accept
Selenium	307		318	3.5	Accept
Sodium	84200		81090	3.8	Accept
Vanadium	13.1		15	13.5	Accept
Zinc	211		220	4.2	Accept

Note:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

Table J-5.5: Laboratory Split Comparison / SVL Analytical and IAS EnviroChem Laboratories

PROJECT: 913-1101-004-001-IF
SDG: W4F0343/I406143

DATE VALIDATED: September 19, 2014

FIELD SAMPLE ID =		14116	SC-04 Soda Down				
SPLIT ID =		14117	SC-04 Soda Down				
COMPOUND/ ANALYTE		SAMPLE RESULT	IAS SPLIT RESULT	RPD	STATUS		
GENERAL CHEMISTRY (mg/L)		14116	14117				
Ammonia as N		0.068	0.07	2.9	Accept		
Bicarbonate		828			NA		
Carbonate		-1	U		NA		
Chloride		39.9	D	45	12.0	Accept	
Fluoride		0.83		0.5	49.6	J - Advisory only	
Hardness		825000		882000	6.7	Accept	
Nitrate/Nitrite as N		1.04		0.88	16.7	Accept	
Phosphorus		0.134		0.15	11.3	Accept	
Sulfate as SO4		84.5	D	87	2.9	Accept	
Total Alkalinity		828		850	2.6	Accept	
Total Diss. Solids		942		994	5.4	Accept	
<hr/>							
METALS - TOTAL (µg/L)		14116	14117				
Cadmium		1.5	J	1	U	40.0	NA
Calcium		119000		134500		12.2	Accept
Magnesium		128000		132900		3.8	Accept
Manganese		128		123		4.0	Accept
Molybdenum		13.5		12		11.8	Accept
Potassium		13300		13150		1.1	Accept
Selenium		32		33		3.1	Accept
Sodium		54900		54090		1.5	Accept
Vanadium		-1.7	U	4		495.7	NA
Zinc		24.6		23		6.7	Accept
<hr/>							
METALS - DISSOLVED (µg/L)		14116	14117				
Cadmium		-0.69	U	1	U	1090.3	NA
Calcium		132000		126900		3.9	Accept
Magnesium		140000		134100		4.3	Accept
Manganese		124		122		1.6	Accept
Molybdenum		13.6		11		21.1	NA
Potassium		14100		12590		11.3	Accept
Selenium		29.5		33		11.2	Accept
Sodium		60300		51590		15.6	Accept
Vanadium		2.7	J	7		88.7	NA
Zinc		19.3		44		78.0	NA

Note:

NA - duplicate rule does not apply - Results <5X RL; J - RPD exceeds 20% for water

ATTACHMENT 1
GLOSSARY OF DATA REPORTING QUALIFIERS

INORGANIC QUALIFIERS

- U:** The material was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- B:** The associated value is greater than the instrument detection limit but less than the associated sample quantitation limit.
- J:** The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+:** The result is an estimated quantity, but the result may be biased high.
- J-:** The result is an estimated quantity, but the result may be biased low.
- R:** The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. (Note: The analyte may or may not be present in the sample).
- UJ:** The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

ATTACHMENT 2
ANNOTATED LABORATORY REPORTS

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0185 Method Type: _____

Sample ID: W4F0185-06

Client ID: 14051

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.70	ug/L	J		P	0.69	2.0	1	THERMO1	14174B
7440-70-2	Calcium	57000	ug/L			P	29.3	40.4	1	THERMO1	14174B
7439-95-4	Magnesium	199000	ug/L			P	90.9	202	1	THERMO1	14174B
7439-96-5	Manganese	226	ug/L			P	1.3	4.0	1	THERMO1	14174B
7439-98-7	Molybdenum	4.6	ug/L	J		P	2.7	8.1	1	THERMO1	14174B
7440-09-7	Potassium	12800	ug/L			P	172	505	1	THERMO1	14174B
7782-49-2	Selenium	0.52	ug/L	U		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01
7440-23-5	Sodium	32500	ug/L			P	65.7	505	1	THERMO1	14174B
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO1	14174B
7440-66-6	Zinc	51.0	ug/L			P	3.2	10.1	1	THERMO1	14174B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
9/16/2014

6
SVL Analytical, Inc.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDFINGER ASSOCIATES SDG No.: W4F0185 Method Type: _____

Sample ID: W4F0185-07

Client ID: 14052

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	7.9	ug/L		P	0.69	2.0	1	THERMOI	14174B	
7440-70-2	Calcium	216000	ug/L		P	29.3	40.4	1	THERMOI	14174B	
7439-95-4	Magnesium	228000	ug/L		P	90.9	202	1	THERMOI	14174B	
7439-96-5	Manganese	805	ug/L		P	1.3	4.0	1	THERMOI	14174B	
7439-98-7	Molybdenum	29.3	ug/L		P	2.7	8.1	1	THERMOI	14174B	
7440-09-7	Potassium	26400	ug/L		P	172	505	1	THERMOI	14174B	
7782-49-2	Selenium	21.0	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	200000	ug/L		P	65.7	505	1	THERMOI	14174B	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMOI	14174B	
7440-66-6	Zinc	16.0	ug/L		P	3.2	10.1	1	THERMOI	14174B	

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: _____

Comments: _____

JSL
9/16/2014

- I -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0185 Method Type: _____

Sample ID: W4F0185-02

Client ID: 14020

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	867000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	154000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	117000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	162	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	10800	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	19.0	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	26300	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	4.3	ug/L	J	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSI
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0185 Method Type: _____

Sample ID: W4F0185-05

Client ID: 14023

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1220000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	56300	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	261000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	158	ug/L			P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	19700	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	0.52	ug/L	U		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01
7440-23-5	Sodium	46000	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSL
9/16/2014

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0185 Method Type: _____

Sample ID: W4F0185-01

Client ID: 14053

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1290000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	266000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	151000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	13.0	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	92.2	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	40200	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	168	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	243000	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	10.4	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

_____JSL
9/16/2014

- I -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0185 Method Type: _____

Sample ID: W4F0185-08

Client ID: 14054

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	987000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	9.5	ug/L		P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	221000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	106000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	125	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	38500	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	302	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	162000	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	8.8	ug/L		P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	33.9	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JG
9/16/2014

- I -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0185 Method Type: _____

Sample ID: W4F0185-03

Client ID: 14057

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved:

Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	473000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	106000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	50900	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	4340	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	1.5	ug/L	J	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	18700	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	2.4	ug/L	J	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	6.5	ug/L	J	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS/
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0185 Method Type: _____

Sample ID: W4F0185-04

Client ID: 14060

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved:

Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	437000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	111000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	38900	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	3.1	ug/L	J	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	29.4	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	2260	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	2.2	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	13000	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	369	ug/L		P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	5.6	ug/L	J	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
9/16/2014



64

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0185
Reported: 30-Jun-14 09:22

Client Sample ID: **14053**SVL Sample ID: **W4F0185-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 07-Jun-14 16:15

Received: 10-Jun-14

Sampled By: DII

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.014		W425139	ARP	06/20/14 08:58	
EPA 353.2	Nitrate/Nitrite as N	5.76	mg/L	0.100	0.048	2	W425097	ARP	06/18/14 15:20	D2
SM 2320B	Total Alkalinity	408	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 09:56	
SM 2320B	Bicarbonate	408	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 09:56	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 09:56	
SM 2540 C	Total Diss. Solids	2380	mg/L	40			W424128	JDM	06/12/14 17:45	D1
SM 4500-P-E	Phosphorus	3.97	mg/L	0.100	0.033	10	W425255	SM	06/20/14 15:42	D2
Anions by Ion Chromatography										
EPA 300.0	Chloride	348	mg/L	10.0	2.35	50	W425094	AEW	06/17/14 13:22	D2,M3
EPA 300.0	Fluoride	2.81	mg/L	0.50	0.14	5	W425094	AEW	06/17/14 13:11	D1
EPA 300.0	Sulfate as SO ₄	929	mg/L	15.0	2.75	50	W425094	AEW	06/17/14 13:22	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/6/2014



65

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0185
Reported: 30-Jun-14 09:22

Client Sample ID: **14020**SVL Sample ID: **W4F0185-02 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 03-Jun-14 15:25
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.014		W425139	ARP	06/20/14 08:59
EPA 353.2	Nitrate/Nitrite as N	0.428	mg/L	0.050	0.024		W425097	ARP	06/18/14 15:38
SM 2320B	Total Alkalinity	632	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:02
SM 2320B	Bicarbonate	632	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:02
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:02
SM 2540 C	Total Diss. Solids	1040	mg/L	10			W424090	JDM	06/10/14 16:35
SM 4500-P-E	Phosphorus	0.069	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42

Anions by Ion Chromatography

EPA 300.0	Chloride	44.3	mg/L	5.00	1.18	25	W425094	AEW	06/17/14 15:12	D2
EPA 300.0	Fluoride	0.63	mg/L	0.10	0.03		W425094	AEW	06/17/14 15:01	
EPA 300.0	Sulfate as SO ₄	251	mg/L	7.50	1.38	25	W425094	AEW	06/17/14 15:12	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/16/2014



66

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002,002
 Work Order: W4F0185
 Reported: 30-Jun-14 09:22

Client Sample ID: **14057**SVL Sample ID: **W4F0185-03 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 08-Jun-14 10:30
 Received: 10-Jun-14
 Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:00
EPA 353.2	Nitrate/Nitrite as N	4.91	mg/L	0.050	0.024		W425097	ARP	06/18/14 14:57
SM 2320B	Total Alkalinity	407	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:07
SM 2320B	Bicarbonate	407	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:07
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:07
SM 2540 C	Total Diss. Solids	553	mg/L	10			W424128	JDM	06/12/14 17:45
SM 4500-P-E	Phosphorus	0.073	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42

Anions by Ion Chromatography

EPA 300.0	Chloride	14.1	mg/L	5.00	1.18	25	W425094	AEW	06/17/14 15:34	D2
EPA 300.0	Fluoride	0.29	mg/L	0.10	0.03		W425094	AEW	06/17/14 15:23	
EPA 300.0	Sulfate as SO ₄	72.0	mg/L	7.50	1.38	25	W425094	AEW	06/17/14 15:34	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

51
all 6/20/14



67

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0185
Reported: 30-Jun-14 09:22

Client Sample ID: **14060**SVL Sample ID: **W4F0185-04 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 08-Jun-14 12:15

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:02
EPA 353.2	Nitrate/Nitrite as N	2.30	mg/L	0.050	0.024		W425097	ARP	06/18/14 15:01
SM 2320B	Total Alkalinity	419	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:17
SM 2320B	Bicarbonate	419	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:17
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:17
SM 2540 C	Total Diss. Solids	483	mg/L	10			W424128	JDM	06/12/14 17:45
SM 4500-P-E	Phosphorus	0.152	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42

Anions by Ion Chromatography

EPA 300.0	Chloride	13.1	mg/L	5.00	1.18	25	W425094	AEW	06/17/14 15:56	D2
EPA 300.0	Fluoride	0.30	mg/L	0.10	0.03		W425094	AEW	06/17/14 15:45	
EPA 300.0	Sulfate as SO ₄	39.9	mg/L	0.30	0.06		W425094	AEW	06/17/14 15:45	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



68

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
 Work Order: W4F0185
 Reported: 30-Jun-14 09 22

Client Sample ID: **14023**SVL Sample ID: **W4F0185-05 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 03-Jun-14 16 40

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.110	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:10	
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.024		W425097	ARP	06/18/14 15:03	
SM 2320B	Total Alkalinity	1170	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:21	
SM 2320B	Bicarbonate	1170	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:21	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:21	
SM 2540 C	Total Diss. Solids	1250	mg/L	10			W424090	JDM	06/10/14 16:35	
SM 4500-P-E	Phosphorus	0.579	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42	
Anions by Ion Chromatography										
EPA 300.0	Chloride	30.5	mg/L	1.00	0.24	5	W425094	AEW	06/17/14 16:08	D2
EPA 300.0	Fluoride	< 0.50	mg/L	0.50	0.14	5	W425094	AEW	06/17/14 16:08	D1
EPA 300.0	Sulfate as SO ₄	138	mg/L	1.50	0.28	5	W425094	AEW	06/17/14 16:08	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

9/16/2014



69

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0185

Reported: 30-Jun-14 09:22

Client Sample ID: 14051

SVL Sample ID: W4F0185-06 (Ground Water)

Sample Report Page 1 of 1

Sampled: 07-Jun-14 12:45

Received: 10-Jun-14

Sampled By: DH

Notes

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed
Classical Chemistry Parameters									
EPA 350.1	Ammonia as N	0.342	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:11
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.024		W425097	ARP	06/18/14 15:04
SM 2320B	Total Alkalinity	859	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:29
SM 2320B	Bicarbonate	859	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:29
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:29
SM 2540 C	Total Diss. Solids	990	mg/L	10			W424128	JDM	06/12/14 17:45
SM 4500-P-E	Phosphorus	4.04	mg/L	0.100	0.033	10	W425255	SM	06/20/14 15:42
Anions by Ion Chromatography									
EPA 300.0	Chloride	32.7	mg/L	1.00	0.24	5	W425094	AEW	06/17/14 16:58
EPA 300.0	Fluoride	0.61	mg/L	0.50	0.14	5	W425094	AEW	06/17/14 16:58
EPA 300.0	Sulfate as SO ₄	115	mg/L	1.50	0.28	5	W425094	AEW	06/17/14 16:58

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/14/2014



70

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
 Work Order: W4F0185
 Reported: 30-Jun-14 09 22

Client Sample ID: **14052**SVL Sample ID: **W4F0185-07 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 07-Jun-14 15 30

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:12	
EPA 353.2	Nitrate/Nitrite as N	0.558	mg/L	0.050	0.024		W425260	ARP	06/19/14 14:04	M1
SM 2320B	Total Alkalinity	475	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:34	
SM 2320B	Bicarbonate	475	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:34	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:34	
SM 2540 C	Total Diss. Solids	2260	mg/L	40			W424128	JDM	06/12/14 17:45	D1
SM 4500-P-E	Phosphorus	1.38	mg/L	0.100	0.033	10	W425255	SM	06/20/14 15:42	D2
Anions by Ion Chromatography										
EPA 300.0	Chloride	298	mg/L	10.0	2.35	50	W425094	AEW	06/17/14 17:31	D2
EPA 300.0	Fluoride	1.28	mg/L	0.50	0.14	5	W425094	AEW	06/17/14 17:20	D1
EPA 300.0	Sulfate as SO ₄	962	mg/L	15.0	2.75	50	W425094	AEW	06/17/14 17:31	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

✓
all 6/20/14



71

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0185
Reported: 30-Jun-14 09:22

Client Sample ID: **14054**SVL Sample ID: **W4F0185-08 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 07-Jun-14 16:45
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:14	
EPA 353.2	Nitrate/Nitrite as N	7.02	mg/L	0.100	0.048	2	W425097	ARP	06/18/14 15:39	D2
SM 2320B	Total Alkalinity	354	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:39	
SM 2320B	Bicarbonate	354	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:39	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:39	
SM 2540 C	Total Diss. Solids	1730	mg/L	40			W424128	JDM	06/12/14 17:45	D1
SM 4500-P-E	Phosphorus	5.57	mg/L	0.100	0.033	10	W425255	SM	06/20/14 15:42	D2

Anions by Ion Chromatography

EPA 300.0	Chloride	225	mg/L	10.0	2.35	50	W425094	AEW	06/17/14 17:53	D2
EPA 300.0	Fluoride	3.46	mg/L	0.50	0.14	5	W425094	AEW	06/17/14 17:42	D1
EPA 300.0	Sulfate as SO ₄	654	mg/L	15.0	2.75	50	W425094	AEW	06/17/14 17:53	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

YSL
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0187 Method Type: _____

Sample ID: W4F0187-04

Client ID: 14037

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	443	ug/L	U		P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	29.0	ug/L	U		P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	90.0	ug/L	U		P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	170	ug/L	U		P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	0.52	ug/L	U		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00
7440-23-5	Sodium	440	ug/L	J		P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.4	ug/L	J		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSI
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0187 Method Type: _____

Sample ID: W4F0187-07

Client ID: 14038

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	399000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	98500	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	37300	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	8940	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	2.2	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00
7440-23-5	Sodium	51500	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
9/14/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0187 Method Type: _____

Sample ID: W4F0187-05

Client ID: 14039

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	401000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	98800	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	37300	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	9070	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	2.1	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00
7440-23-5	Sodium	51600	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

5/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0187 Method Type: _____

Sample ID: W4F0187-06

Client ID: 14040

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	410000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	102000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	37700	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	17.4	ug/L			P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	382	ug/L			P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	6320	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	1.4	ug/L	J		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00
7440-23-5	Sodium	41500	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	652	ug/L			P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
6/10/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0187 Method Type: _____

Sample ID: W4F0187-08

Client ID: 14042

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1350000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	6.6	ug/L		P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	72300	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	284000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	3000	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	28.7	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	22600	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	129	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	95000	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	53.6	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JG
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0187 Method Type: _____

Sample ID: W4F0187-02

Client ID: 14045

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1260000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	879	ug/L		P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	313000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	117000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	748	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	201	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	31900	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	292	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	59600	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	36.6	ug/L		P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	3840	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSL
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0187 Method Type: _____

Sample ID: W4F0187-01

Client ID: 14047

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	754000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	153000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	90600	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	6760	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	4.1	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	27400	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	2.0	ug/L	J	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	3.2	ug/L	U	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0187 Method Type: _____

Sample ID: W4F0187-03

Client ID: 14048

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	583000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	125000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	65500	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	8.3	ug/L			P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	5570	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	2.5	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00
7440-23-5	Sodium	30700	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
9/16/2014

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002
 Work Order: W4F0187
 Reported: 30-Jun-14 09:31

Client Sample ID: **14047**SVL Sample ID: **W4F0187-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 06-Jun-14 17:30
 Received: 10-Jun-14
 Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Amonia as N	< 0.030	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:15	
EPA 353.2	Nitrate/Nitrite as N	3.95	J+	mg/L	0.050	0.024	W425097	ARP	06/18/14 15:21	M2
SM 2320B	Total Alkalinity	620	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:44	
SM 2320B	Bicarbonate	620	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:44	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:44	
SM 2540 C	Total Diss. Solids	867	mg/L	10			W424128	JDM	06/12/14 17:45	
SM 4500-P-E	Phosphorus	0.099	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42	

Anions by Ion Chromatography

EPA 300.0	Chloride	64.7	mg/L	5.00	1.18	25	W425177	AEW	06/18/14 15:37	D2,M3
EPA 300.0	Fluoride	0.35	mg/L	0.10	0.03		W425177	AEW	06/18/14 15:26	
EPA 300.0	Sulfate as SO ₄	82.3	mg/L	7.50	1.38	25	W425177	AEW	06/18/14 15:37	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

J
9/16/2014



54

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002
Work Order: W4F0187
Reported: 30-Jun-14 09:31

Client Sample ID: 14045

SVL Sample ID: W4F0187-02 (Ground Water)

Sample Report Page 1 of 1

Sampled: 06-Jun-14 14:45

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.326	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:16	
EPA 353.2	Nitrate/Nitrite as N	8.32	mg/L	0.100	0.048	2	W425097	ARP	06/18/14 15:41	D2
SM 2320B	Total Alkalinity	333	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:49	
SM 2320B	Bicarbonate	333	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:49	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:49	
SM 2540 C	Total Diss. Solids	1980	mg/L	40			W424128	JDM	06/12/14 17:45	D1
SM 4500-P-E	Phosphorus	0.682	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42	

Anions by Ion Chromatography

EPA 300.0	Chloride	533	mg/L	10.0	2.35	50	W425177	AEW	06/18/14 17:43	D2
EPA 300.0	Fluoride	7.44	mg/L	0.50	0.14	5	W425177	AEW	06/18/14 17:31	D2
EPA 300.0	Sulfate as SO ₄	325	mg/L	15.0	2.75	50	W425177	AEW	06/18/14 17:43	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JSI
6/6/2014

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002
 Work Order: W4F0187
 Reported: 30-Jun-14 09:31

Client Sample ID: **14048**SVL Sample ID: **W4F0187-03 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 06-Jun-14 18:00
 Received: 10-Jun-14
 Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Aminonia as N	< 0.030	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:18
EPA 353.2	Nitrate/Nitrite as N	3.84	mg/L	0.050	0.024		W425097	ARP	06/18/14 15:24
SM 2320B	Total Alkalinity	506	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:58
SM 2320B	Bicarbonate	506	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:58
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 10:58
SM 2540 C	Total Diss. Solids	645	mg/L	10			W424128	JDM	06/12/14 17:45
SM 4500-P-E	Phosphorus	0.104	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42

Anions by Ion Chromatography

EPA 300.0	Chloride	19.9	mg/L	5.00	1.18	25	W425177	AEW	06/18/14 18:06	D2
EPA 300.0	Fluoride	0.35	mg/L	0.10	0.03		W425177	AEW	06/18/14 17:54	
EPA 300.0	Sulfate as SO ₄	111	mg/L	7.50	1.38	25	W425177	AEW	06/18/14 18:06	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

jl
9/16/2014



56

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002
Work Order: W4F0187
Reported: 30-Jun-14 09:31

Client Sample ID: 14037

SVL Sample ID: W4F0187-04 (Ground Water)

Sample Report Page 1 of 1

Sampled: 06-Jun-14 08:00
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonium as N	< 0.030	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:19
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.024		W425097	ARP	06/18/14 15:25
SM 2320B	Total Alkalinity	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:11
SM 2320B	Bicarbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:11
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:11
SM 2540 C	Total Diss. Solids	< 10	mg/L	10			W424128	JDM	06/12/14 17:45
SM 4500-P-E	Phosphorus	0.010	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42

Anions by Ion Chromatography

EPA 300.0	Chloride	< 0.20	mg/L	0.20	0.05		W425177	AEW	06/18/14 16:34
EPA 300.0	Fluoride	< 0.10	mg/L	0.10	0.03		W425177	AEW	06/18/14 16:34
EPA 300.0	Sulfate as SO ₄	< 0.30	mg/L	0.30	0.06		W425177	AEW	06/18/14 16:34

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JST
7/16/2014

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002
Work Order: W4F0187
Reported: 30-Jun-14 09:31

Client Sample ID: **14039**SVL Sample ID: **W4F0187-05 (Ground Water)****Sample Report Page 1 of 1**
 Sampled: 06-Jun-14 10:00
 Received: 10-Jun-14
 Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	6.39	mg/L	0.150	0.070	5	W425139	ARP	06/20/14 09:36	D2
EPA 353.2	Nitrate/Nitrite as N	4.14	mg/L	0.050	0.024		W425097	ARP	06/18/14 15:27	
SM 2320B	Total Alkalinity	416	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:17	
SM 2320B	Bicarbonate	416	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:17	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:17	
SM 2540 C	Total Diss. Solids	562	mg/L	10			W424128	JDM	06/12/14 17:45	
SM 4500-P-E	Phosphorus	0.061	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42	

Anions by Ion Chromatography

EPA 300.0	Chloride	25.0	mg/L	5.00	1.18	25	W425177	AEW	06/18/14 18:28	D2
EPA 300.0	Fluoride	0.27	mg/L	0.10	0.03		W425177	AEW	06/18/14 18:17	
EPA 300.0	Sulfate as SO ₄	77.2	mg/L	7.50	1.38	25	W425177	AEW	06/18/14 18:28	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

15
6/16/2014



58

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002
Work Order: W4F0187
Reported: 30-Jun-14 09:31

Client Sample ID: 14040

SVL Sample ID: W4F0187-06 (Ground Water)

Sample Report Page 1 of 1

Sampled: 06-Jun-14 10:15
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	6.92	mg/L	0.600	0.280	20	W425139	ARP	06/20/14 09:27	D2
EPA 353.2	Nitrate/Nitrite as N	6.32	mg/L	0.100	0.048	2	W425097	ARP	06/18/14 15:47	D2
SM 2320B	Total Alkalinity	397	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:22	
SM 2320B	Bicarbonate	397	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:22	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:22	
SM 2540 C	Total Diss. Solids	522	mg/L	10			W424128	JDM	06/12/14 17:45	
SM 4500-P-E	Phosphorus	0.549	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42	
Anions by Ion Chromatography										
EPA 300.0	Chloride	22.5	mg/L	5.00	1.18	25	W425177	AEW	06/18/14 18:51	D2
EPA 300.0	Fluoride	0.31	mg/L	0.10	0.03		W425177	AEW	06/18/14 18:40	
EPA 300.0	Sulfate as SO ₄	79.2	mg/L	7.50	1.38	25	W425177	AEW	06/18/14 18:51	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



59

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002
Work Order: W4F0187
Reported: 30-Jun-14 09:31

Client Sample ID: **14038**

Sampled: 06-Jun-14 09:30

SVL Sample ID: **W4F0187-07 (Ground Water)**

Received: 10-Jun-14

Sampled By: DH

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	6.19	mg/L	0.600	0.280	20	W425139	ARP	06/20/14 09:28	D2
EPA 353.2	Nitrate/Nitrite as N	4.31	mg/L	0.050	0.024		W425097	ARP	06/18/14 15:35	
SM 2320B	Total Alkalinity	412	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:26	
SM 2320B	Bicarbonate	412	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:26	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:26	
SM 2540 C	Total Diss. Solids	566	mg/L	10			W424128	JDM	06/12/14 17:45	
SM 4500-P-E	Phosphorus	0.058	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42	

Anions by Ion Chromatography

EPA 300.0	Chloride	25.0	mg/L	5.00	1.18	25	W425177	AEB	06/18/14 19:37	D2
EPA 300.0	Fluoride	0.26	mg/L	0.10	0.03		W425177	AEB	06/18/14 19:26	
EPA 300.0	Sulfate as SO ₄	77.0	mg/L	7.50	1.38	25	W425177	AEB	06/18/14 19:37	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



60

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002
Work Order: W4F0187
Reported: 30-Jun-14 09:31

Client Sample ID: **14042**SVL Sample ID: **W4F0187-08 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 06-Jun-14 11:00
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.228	mg/L	0.030	0.014		W425139	ARP	06/20/14 09:30	
EPA 353.2	Nitrate/Nitrite as N	0.395	mg/L	0.050	0.024		W425097	ARP	06/18/14 15:37	
SM 2320B	Total Alkalinity	1080	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:31	
SM 2320B	Bicarbonate	1080	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:31	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424153	AGF	06/12/14 11:31	
SM 2540 C	Total Diss. Solids	1560	mg/L	40			W424128	JDM	06/12/14 17:45	D1
SM 4500-P-E	Phosphorus	0.967	mg/L	0.010	0.003		W425255	SM	06/20/14 15:42	

Anions by Ion Chromatography

EPA 300.0	Chloride	166	mg/L	10.0	2.35	50	W425177	AEW	06/18/14 20:00	D2
EPA 300.0	Fluoride	2.52	mg/L	0.50	0.14	5	W425177	AEW	06/18/14 19:48	D1
EPA 300.0	Sulfate as SO ₄	225	mg/L	1.50	0.28	5	W425177	AEW	06/18/14 19:48	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0188 Method Type: _____

Sample ID: W4F0188-02

Client ID: 14026

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	467000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	113000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	44900	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	53.5	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	3520	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	3.7	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	21200	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	142	ug/L		P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	3.2	ug/L	U	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSL
6/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0188

Method Type: _____

Sample ID: W4F0188-07

Client ID: 14028

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved:

Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	801000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	23.6	ug/L		P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	140000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	109000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	658	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	231	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	27600	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	180	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	45800	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	3.2	ug/L	J	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	123	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSL
 6/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0188 Method Type: _____

Sample ID: W4F0188-03

Client ID: 14029

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	820000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	255	ug/L		P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	149000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	109000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	256	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	215	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	26900	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	238	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	50300	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	64.2	ug/L		P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	1840	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JP
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0188 Method Type: _____

Sample ID: W4F0188-06

Client ID: 14030

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1060000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	104000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	195000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	481	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	5.8	ug/L	J	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	16300	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	30.0	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	49900	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	4.1	ug/L	J	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0188 Method Type: _____

Sample ID: W4F0188-05

Client ID: 14035

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	848000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	138000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	122000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	504	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	112	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	28000	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	363	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18100	
7440-23-5	Sodium	149000	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	2.7	ug/L	J	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	3.9	ug/L	J	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SL
9/16/2014

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0188

Method Type:

Sample ID: W4F0188-04

Client ID: 14036

Contract:

Lab Code: SVL

Case No.:

SAS No.:

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved:

Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	525000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	115000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	57800	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	2.8	ug/L	J	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	5030	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	1.6	ug/L	J	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	21500	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	3.2	ug/L	U	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: _____

Comments: _____

_____JS
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0188 Method Type: _____

Sample ID: W4F0188-10

Client ID: 14043

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	816000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	450	ug/L		P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	158000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	102000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	8.2	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	9720	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	177	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	55300	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	49.1	ug/L		P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	1530	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
9/16/2014

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0188 Method Type: _____

Sample ID: W4F0188-08

Client ID: 14044

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1460000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	150000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	265000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	700	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	6.9	ug/L	J	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	23700	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	0.52	ug/L	U	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	102000	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	13.4	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

_____JSL
6/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0188 Method Type: _____

Sample ID: W4F0188-09

Client ID: 14046

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1030000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	2.9	ug/L		P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	133000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	170000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	445	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	13.4	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	18100	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	0.52	ug/L	U	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	46900	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	34.8	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSL
9/16/2014



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0188
Reported: 30-Jun-14 09:13

Client Sample ID: **TW58**SVL Sample ID: **W4F0188-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 04-Jun-14 12:00

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

SM 2540 D	Total Susp. Solids	< 5.0	mg/L	5.0			W424120	RS	06/11/14 12:50
SM 5310B	Total Organic Carbon	6.07	mg/L	1.00	0.24		W425306	SM	06/20/14 13:50

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/16/2014



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NIE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0188
Reported: 30-Jun-14 09:13

Client Sample ID: **14026**

Sampled: 04-Jun-14 10:15

SVL Sample ID: **W4F0188-02 (Ground Water)**

Received: 10-Jun-14

Sampled By: DH

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425138	ARP	06/24/14 10:58	R2B
EPA 353.2	Nitrate/Nitrite as N	3.82	mg/L	0.100	0.048	2	W425096	ARP	06/18/14 11:29	D2
SM 2320B	Total Alkalinity	390	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 08:50	
SM 2320B	Bicarbonate	390	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 08:50	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 08:50	
SM 2540 C	Total Diss. Solids	540	mg/L	10			W424125	RS	06/11/14 12:56	
SM 4500-P-E	Phosphorus	0.117	mg/L	0.010	0.003		W425174	SM	06/19/14 14:00	
Anions by Ion Chromatography										
EPA 300.0	Chloride	36.6	mg/L	5.00	1.18	25	W425178	AEW	06/18/14 17:22	D2,M3
EPA 300.0	Fluoride	0.37	mg/L	0.10	0.03		W425178	AEW	06/18/14 17:11	
EPA 300.0	Sulfate as SO ₄	53.2	mg/L	7.50	1.38	25	W425178	AEW	06/18/14 17:22	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
 Technical Director

JG
 9/16/2014

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
 Work Order: W4F0188
 Reported: 30-Jun-14 09:13

Client Sample ID: 14029

Sampled: 04-Jun-14 15:15

SVL Sample ID: W4F0188-03 (Ground Water)

Received: 10-Jun-14

Sampled By: DH

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.795	mg/L	0.030	0.022		W425138	ARP	06/24/14 10:59
EPA 353.2	Nitrate/Nitrite as N	4.22	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:06
SM 2320B	Total Alkalinity	754	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:00
SM 2320B	Bicarbonate	754	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:00
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:00
SM 2540 C	Total Diss. Solids	996	mg/L	10			W424125	RS	06/11/14 12:56
SM 4500-P-E	Phosphorus	0.397	mg/L	0.010	0.003		W425174	SM	06/19/14 14:00

Anions by Ion Chromatography

EPA 300.0	Chloride	30.2	mg/L	5.00	1.18	25	W425178	AEW	06/18/14 19:12	D2
EPA 300.0	Fluoride	4.39	mg/L	0.10	0.03		W425178	AEW	06/18/14 19:01	
EPA 300.0	Sulfate as SO ₄	125	mg/L	7.50	1.38	25	W425178	AEW	06/18/14 19:12	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JSL
9/16/2014



56

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0188
Reported: 30-Jun-14 09:13

Client Sample ID: **14036**SVL Sample ID: **W4F0188-04 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 05-Jun-14 16:30

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:01
EPA 353.2	Nitrate/Nitrite as N	4.28	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:07
SM 2320B	Total Alkalinity	451	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:18
SM 2320B	Bicarbonate	451	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:18
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:18
SM 2540 C	Total Diss. Solids	624	mg/L	10			W424125	RS	06/11/14 12:56
SM 4500-P-E	Phosphorus	0.060	mg/L	0.010	0.003		W425174	SM	06/19/14 14:00

Anions by Ion Chromatography

EPA 300.0	Chloride	15.4	mg/L	5.00	1.18	25	W425178	AEW	06/18/14 19:34	D2
EPA 300.0	Fluoride	0.29	mg/L	0.10	0.03		W425178	AEW	06/18/14 19:23	
EPA 300.0	Sulfate as SO ₄	87.2	mg/L	7.50	1.38	25	W425178	AEW	06/18/14 19:34	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JSL
9/6/2014



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0188
Reported: 30-Jun-14 09:13

Client Sample ID: **14035**SVL Sample ID: **W4F0188-05 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 05-Jun-14 16:05

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.623	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:02	
EPA 353.2	Nitrate/Nitrite as N	4.94	mg/L	0.100	0.048	2	W425096	ARP	06/18/14 11:36	D2
SM 2320B	Total Alkalinity	547	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:29	
SM 2320B	Bicarbonate	547	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:29	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:29	
SM 2540 C	Total Diss. Solids	1380	mg/L	40			W424125	RS	06/11/14 12:56	D1
SM 4500-P-E	Phosphorus	0.522	mg/L	0.010	0.003		W425174	SM	06/19/14 14:00	
Anions by Ion Chromatography										
EPA 300.0	Chloride	201	mg/L	10.0	2.35	50	W425178	AEW	06/18/14 19:56	D2
EPA 300.0	Fluoride	1.44	mg/L	0.50	0.14	5	W425178	AEW	06/18/14 19:45	D1
EPA 300.0	Sulfate as SO ₄	319	mg/L	15.0	2.75	50	W425178	AEW	06/18/14 19:56	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

51
9/16/2014



One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0188
Reported: 30-Jun-14 09:13

Client Sample ID: **14030**SVL Sample ID: **W4F0188-06 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 04-Jun-14 18:00

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.092	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:03
EPA 353.2	Nitrate/Nitrite as N	0.100	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:16
SM 2320B	Total Alkalinity	953	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:47
SM 2320B	Bicarbonate	953	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:47
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 09:47
SM 2540 C	Total Diss. Solids	1150	mg/L	10			W424125	RS	06/11/14 12:56
SM 4500-P-E	Phosphorus	0.094	mg/L	0.010	0.003		W425174	SM	06/19/14 14:00

Anions by Ion Chromatography

EPA 300.0	Chloride	37.5	mg/L	5.00	1.18	25	W425178	AEW	06/18/14 20:18	D2
EPA 300.0	Fluoride	1.14	mg/L	0.10	0.03		W425178	AEW	06/18/14 20:07	
EPA 300.0	Sulfate as SO ₄	148	mg/L	7.50	1.38	25	W425178	AEW	06/18/14 20:18	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JST
9/16/2014

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0188

Reported: 30-Jun-14 09:13

Client Sample ID: 14028

SVL Sample ID: W4F0188-07 (Ground Water)

Sample Report Page 1 of 1

Sampled: 04-Jun-14 15:00

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	1.22	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:05	
EPA 353.2	Nitrate/Nitrite as N	3.90	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:17	
SM 2320B	Total Alkalinity	745	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 10:07	
SM 2320B	Bicarbonate	745	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 10:07	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 10:07	
SM 2540 C	Total Diss. Solids	985	mg/L	10			W424125	RS	06/11/14 12:56	
SM 4500-P-E	Phosphorus	0.420	mg/L	0.010	0.003		W425174	SM	06/19/14 14:00	
Anions by Ion Chromatography										
EPA 300.0	Chloride	26.7	mg/L	5.00	1.18	25	W425178	AEW	06/18/14 20:41	D2
EPA 300.0	Fluoride	3.06	mg/L	0.10	0.03		W425178	AEW	06/18/14 20:29	
EPA 300.0	Sulfate as SO ₄	120	mg/L	7.50	1.38	25	W425178	AEW	06/18/14 20:41	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
 Technical Director

JS
 9/16/2014



60

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002,002
Work Order: W4F0188
Reported: 30-Jun-14 09:13

Client Sample ID: **14044**

Sampled: 06-Jun-14 14:00

SVL Sample ID: **W4F0188-08 (Ground Water)**

Received: 10-Jun-14

Sampled By: DH

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.465	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:06	
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:19	
SM 2320B	Total Alkalinity	1010	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:24	
SM 2320B	Bicarbonate	1010	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:24	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:24	
SM 2540 C	Total Diss. Solids	1780	mg/L	40			W424125	RS	06/11/14 12:56	DI
SM 4500-P-I:	Phosphorus	0.827	mg/L	0.010	0.003		W425174	SM	06/19/14 14:00	

Anions by Ion Chromatography

EPA 300.0	Chloride	73.5	mg/L	10.0	2.35	50	W425178	AEW	06/18/14 21:25	D2
EPA 300.0	Fluoride	0.80	mg/L	0.50	0.14	5	W425178	AEW	06/18/14 21:14	DI
EPA 300.0	Sulfate as SO ₄	527	mg/L	15.0	2.75	50	W425178	AEW	06/18/14 21:25	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0188
Reported: 30-Jun-14 09:13

Client Sample ID: 14046

SVL Sample ID: W4F0188-09 (Ground Water)

Sample Report Page 1 of 1

Sampled: 06-Jun-14 16:00

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.722	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:13
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:20
SM 2320B	Total Alkalinity	982	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 10:44
SM 2320B	Bicarbonate	982	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 10:44
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 10:44
SM 2540 C	Total Diss. Solids	1160	mg/L	10			W424125	RS	06/11/14 12:56
SM 4500-P-E	Phosphorus	0.418	mg/L	0.010	0.003		W425174	SM	06/19/14 14:00

Anions by Ion Chromatography

EPA 300.0	Chloride	25.6	mg/L	1.00	0.24	5	W425178	AEG	06/18/14 21:36	D2
EPA 300.0	Fluoride	0.68	mg/L	0.50	0.14	5	W425178	AEG	06/18/14 21:36	D1
EPA 300.0	Sulfate as SO ₄	117	mg/L	1.50	0.28	5	W425178	AEG	06/18/14 21:36	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/16/2014



62

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0188
Reported: 30-Jun-14 09:13

Client Sample ID: **14043**SVL Sample ID: **W4F0188-10 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 06-Jun-14 11:25

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.038	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:14	
EPA 353.2	Nitrate/Nitrite as N	4.96	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:22	
SM 2320B	Total Alkalinity	577	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:05	
SM 2320B	Bicarbonate	577	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:05	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:05	
SM 2540 C	Total Diss. Solids	1060	mg/L	10			W424125	RS	06/11/14 12:56	
SM 4500-P-E	Phosphorus	1.63	mg/L	0.050	0.016	5	W425174	SM	06/19/14 14:00	D2

Anions by Ion Chromatography

EPA 300.0	Chloride	111	mg/L	5.00	1.18	25	W425178	AEW	06/18/14 22:09	D2
EPA 300.0	Fluoride	2.05	mg/L	0.10	0.03		W425178	AEW	06/18/14 21:58	
EPA 300.0	Sulfate as SO ₄	179	mg/L	7.50	1.38	25	W425178	AEW	06/18/14 22:09	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0190 Method Type: _____

Sample ID: W4F0190-02

Client ID: 14049

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Dissolved: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	2210	ug/L		P	0.69	2.0	1	THERMO1	14174B	
7440-70-2	Calcium	376000	ug/L		P	29.3	40.4	1	THERMO1	14174B	
7439-95-4	Magnesium	170000	ug/L		P	90.9	202	1	THERMO1	14174B	
7439-96-5	Manganese	7.7	ug/L		P	1.3	4.0	1	THERMO1	14174B	
7439-98-7	Molybdenum	133	ug/L		P	2.7	8.1	1	THERMO1	14174B	
7440-09-7	Potassium	54300	ug/L		P	172	505	1	THERMO1	14174B	
7782-49-2	Selenium	851	ug/L	J	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F1701	
7440-23-5	Sodium	354000	ug/L		P	65.7	505	1	THERMO1	14174B	
7440-62-2	Vanadium	14.0	ug/L		P	1.7	5.0	1	THERMO1	14174B	
7440-66-6	Zinc	3450	ug/L		P	3.2	10.1	1	THERMO1	14174B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Jsl
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0190 Method Type: _____

Sample ID: W4F0190-09

Client ID: 14050

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	2380	ug/L		P	0.69	2.0	1	THERMO1	14174B	
7440-70-2	Calcium	361000	ug/L		P	29.3	40.4	1	THERMO1	14174B	
7439-95-4	Magnesium	161000	ug/L		P	90.9	202	1	THERMO1	14174B	
7439-96-5	Manganese	14.0	ug/L		P	1.3	4.0	1	THERMO1	14174B	
7439-98-7	Molybdenum	136	ug/L		P	2.7	8.1	1	THERMO1	14174B	
7440-09-7	Potassium	57100	ug/L		P	172	505	1	THERMO1	14174B	
7782-49-2	Selenium	783	ug/L	J	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	346000	ug/L		P	65.7	505	1	THERMO1	14174B	
7440-62-2	Vanadium	18.1	ug/L		P	1.7	5.0	1	THERMO1	14174B	
7440-66-6	Zinc	3310	ug/L		P	3.2	10.1	1	THERMO1	14174B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSL
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0190

Method Type: _____

Sample ID: W4F0190-01

Client ID: 14019

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1000000	ug/L		P	443	923	1	THERMO1	14174B	
7440-43-9	Cadmium	9.1	ug/L		P	0.68	2.0	1	THERMO1	14174B	
7440-70-2	Calcium	200000	ug/L		P	29.0	40.0	1	THERMO1	14174B	
7439-95-4	Magnesium	122000	ug/L		P	90.0	200	1	THERMO1	14174B	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO1	14174B	
7439-98-7	Molybdenum	57.2	ug/L		P	2.7	8.0	1	THERMO1	14174B	
7440-09-7	Potassium	23600	ug/L		P	170	500	1	THERMO1	14174B	
7782-49-2	Selenium	240	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	84800	ug/L		P	65.0	500	1	THERMO1	14174B	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO1	14174B	
7440-66-6	Zinc	101	ug/L		P	3.2	10.0	1	THERMO1	14174B	

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: _____

Comments: _____

J51
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0190 Method Type: _____

Sample ID: W4F0190-03

Client ID: 14055

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	293000	ug/L			P	443	923	1	THERMO1	14174B
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO1	14174B
7440-70-2	Calcium	89700	ug/L			P	29.0	40.0	1	THERMO1	14174B
7439-95-4	Magnesium	16800	ug/L			P	90.0	200	1	THERMO1	14174B
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO1	14174B
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO1	14174B
7440-09-7	Potassium	2270	ug/L			P	170	500	1	THERMO1	14174B
7782-49-2	Selenium	3.1	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01
7440-23-5	Sodium	23200	ug/L			P	65.0	500	1	THERMO1	14174B
7440-62-2	Vanadium	5.6	ug/L			P	1.7	5.0	1	THERMO1	14174B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO1	14174B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JST
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0190 Method Type: _____

Sample ID: W4F0190-04

Client ID: 14056

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	559000	ug/L		P	443	923	1	THERMO1	14174B	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO1	14174B	
7440-70-2	Calcium	121000	ug/L		P	29.0	40.0	1	THERMO1	14174B	
7439-95-4	Magnesium	62600	ug/L		P	90.0	200	1	THERMO1	14174B	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO1	14174B	
7439-98-7	Molybdenum	3.1	ug/L	J	P	2.7	8.0	1	THERMO1	14174B	
7440-09-7	Potassium	5160	ug/L		P	170	500	1	THERMO1	14174B	
7782-49-2	Selenium	1.5	ug/L	J	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	23300	ug/L		P	65.0	500	1	THERMO1	14174B	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO1	14174B	
7440-66-6	Zinc	3.2	ug/L	U	P	3.2	10.0	1	THERMO1	14174B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
6/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0190 Method Type: _____

Sample ID: W4F0190-05

Client ID: 14058

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	424000	ug/L		P	443	923	1	THERMO1	14174B	
7440-43-9	Cadmium	0.74	ug/L	J	P	0.68	2.0	1	THERMO1	14174B	
7440-70-2	Calcium	103000	ug/L		P	29.0	40.0	1	THERMO1	14174B	
7439-95-4	Magnesium	40200	ug/L		P	90.0	200	1	THERMO1	14174B	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO1	14174B	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	THERMO1	14174B	
7440-09-7	Potassium	2550	ug/L		P	170	500	1	THERMO1	14174B	
7782-49-2	Selenium	3.4	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	8370	ug/L		P	65.0	500	1	THERMO1	14174B	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO1	14174B	
7440-66-6	Zinc	12.6	ug/L		P	3.2	10.0	1	THERMO1	14174B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
6/10/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0190 Method Type: _____

<u>Sample ID:</u> <u>W4F0190-06</u>	<u>Client ID:</u> <u>14059</u>
-------------------------------------	--------------------------------

<u>Contract:</u> _____	<u>Lab Code:</u> <u>SVL</u>	<u>Case No.:</u> _____	<u>SAS No.:</u> _____
------------------------	-----------------------------	------------------------	-----------------------

<u>Matrix:</u> <u>WATER</u>	<u>Date Received:</u> <u>6/10/2014</u>	<u>Level:</u> <u>LOW</u>
-----------------------------	----------------------------------------	--------------------------

<u>% Solids:</u> _____	<u>Total/Dissolved:</u> _____	<u>Total Recoverable</u> _____
------------------------	-------------------------------	--------------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	442000	ug/L		P	443	923	1	THERMO1	14174B	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO1	14174B	
7440-70-2	Calcium	111000	ug/L		P	29.0	40.0	1	THERMO1	14174B	
7439-95-4	Magnesium	39900	ug/L		P	90.0	200	1	THERMO1	14174B	
7439-96-5	Manganese	2.8	ug/L	J	P	1.3	4.0	1	THERMO1	14174B	
7439-98-7	Molybdenum	28.3	ug/L		P	2.7	8.0	1	THERMO1	14174B	
7440-09-7	Potassium	2440	ug/L		P	170	500	1	THERMO1	14174B	
7782-49-2	Selenium	2.2	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	12900	ug/L		P	65.0	500	1	THERMO1	14174B	
7440-62-2	Vanadium	367	ug/L		P	1.7	5.0	1	THERMO1	14174B	
7440-66-6	Zinc	7.9	ug/L	J	P	3.2	10.0	1	THERMO1	14174B	

<u>Color Before:</u> <u>COLORLESS</u>	<u>Clarity Before:</u> <u>CLEAR</u>	<u>Texture:</u> _____
---------------------------------------	-------------------------------------	-----------------------

<u>Color After:</u> <u>COLORLESS</u>	<u>Clarity After:</u> <u>CLEAR</u>	<u>Artifacts:</u> _____
--------------------------------------	------------------------------------	-------------------------

Comments: _____

JSL 9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0190

Method Type:

Sample ID: W4F0190-07

Client ID: 14072

Contract:

Lab Code: SVL

Case No.:

SAS No.:

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	532000	ug/L			P	443	923	1	THERMO1	14174B
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO1	14174B
7440-70-2	Calcium	110000	ug/L			P	29.0	40.0	1	THERMO1	14174B
7439-95-4	Magnesium	62200	ug/L			P	90.0	200	1	THERMO1	14174B
7439-96-5	Manganese	8.7	ug/L			P	1.3	4.0	1	THERMO1	14174B
7439-98-7	Molybdenum	85.0	ug/L			P	2.7	8.0	1	THERMO1	14174B
7440-09-7	Potassium	7520	ug/L			P	170	500	1	THERMO1	14174B
7782-49-2	Selenium	2.2	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01
7440-23-5	Sodium	32500	ug/L			P	65.0	500	1	THERMO1	14174B
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO1	14174B
7440-66-6	Zinc	22.9	ug/L			P	3.2	10.0	1	THERMO1	14174B

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: _____

Comments: _____

J51
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0190 Method Type: _____

Sample ID: W4F0190-08

Client ID: 14073

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____ Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	888000	ug/L		P	443	923	1	THERMO1	14174B	
7440-43-9	Cadmium	138	ug/L		P	0.68	2.0	1	THERMO1	14174B	
7440-70-2	Calcium	139000	ug/L		P	29.0	40.0	1	THERMO1	14174B	
7439-95-4	Magnesium	131000	ug/L		P	90.0	200	1	THERMO1	14174B	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO1	14174B	
7439-98-7	Molybdenum	93.4	ug/L		P	2.7	8.0	1	THERMO1	14174B	
7440-09-7	Potassium	18700	ug/L		P	170	500	1	THERMO1	14174B	
7782-49-2	Selenium	181	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	45100	ug/L		P	65.0	500	1	THERMO1	14174B	
7440-62-2	Vanadium	6.8	ug/L		P	1.7	5.0	1	THERMO1	14174B	
7440-66-6	Zinc	899	ug/L		P	3.2	10.0	1	THERMO1	14174B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
9/16/2014



61

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0190
Reported: 01-Jul-14 08:58

Client Sample ID: **14019**SVL Sample ID: **W4F0190-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 03-Jun-14 13:15

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:15	
EPA 353.2	Nitrate/Nitrite as N	14.3	mg/L	0.250	0.120	5	W425096	ARP	06/18/14 11:37	D2
SM 2320B	Total Alkalinity	362	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:19	
SM 2320B	Bicarbonate	362	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:19	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:19	
SM 2540 C	Total Diss. Solids	1510	mg/L	10			W424090	JDM	06/10/14 16:35	
SM 4500-P-E	Phosphorus	0.153	mg/L	0.010	0.003		W426056	SM	06/24/14 15:13	

Anions by Ion Chromatography

EPA 300.0	Chloride	134	mg/L	5.00	1.18	25	W425179	AEG	06/18/14 21:08	D2,M3
EPA 300.0	Fluoride	2.91	mg/L	0.10	0.03		W425179	AEG	06/18/14 20:57	
EPA 300.0	Sulfate as SO ₄	585	mg/L	7.50	1.38	25	W425179	AEG	06/18/14 21:08	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JL 9/16/2014



62

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0190
Reported: 01-Jul-14 08:58

Client Sample ID: **14049**SVL Sample ID: **W4F0190-02 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 07-Jun-14 09:15
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:17	
EPA 353.2	Nitrate/Nitrite as N	16.6	mg/L	0.250	0.120	5	W425096	ARP	06/18/14 12:03	D2
SM 2320B	Total Alkalinity	389	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:28	
SM 2320B	Bicarbonate	389	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:28	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:28	
SM 2540 C	Total Diss. Solids	3060	mg/L	40			W424126	JDM	06/12/14 18:30	D1
SM 4500-P-E	Phosphorus	6.70	mg/L	0.100	0.033	10	W426056	SM	06/24/14 15:13	D2

Anions by Ion Chromatography

EPA 300.0	Chloride	530	mg/L	20.0	4.70	100	W425179	AEW	06/18/14 23:03	D2
EPA 300.0	Fluoride	3.89	mg/L	0.50	0.14	5	W425179	AEW	06/18/14 22:51	D1
EPA 300.0	Sulfate as SO ₄	1230	mg/L	30.0	5.50	100	W425179	AEW	06/18/14 23:03	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JSI
9/16/2014



63

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0190

Reported: 01-Jul-14 08:58

Client Sample ID: 14055

SVL Sample ID: W4F0190-03 (Ground Water)

Sampled: 08-Jun-14 09:25

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:18	
EPA 353.2	Nitrate/Nitrite as N	17.7	mg/L	0.250	0.120	5	W425096	ARP	06/18/14 12:04	D2
SM 2320B	Total Alkalinity	223	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:44	
SM 2320B	Bicarbonate	223	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:44	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:44	
SM 2540 C	Total Diss. Solids	429	mg/L	10			W424126	JDM	06/12/14 18:30	
SM 4500-P-E	Phosphorus	0.045	mg/L	0.010	0.003		W426056	SM	06/24/14 15:13	
Anions by Ion Chromatography										
EPA 300.0	Chloride	21.1	mg/L	2.00	0.47	10	W425179	AEW	06/18/14 23:25	D2
EPA 300.0	Fluoride	0.38	mg/L	0.10	0.03		W425179	AEW	06/18/14 23:14	
EPA 300.0	Sulfate as SO ₄	46.6	mg/L	0.30	0.06		W425179	AEW	06/18/14 23:14	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
7/16/2014



64

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0190
Reported: 01-Jul-14 08:58

Client Sample ID: **14056**SVL Sample ID: **W4F0190-04 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 08-Jun-14 10:00
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:19
EPA 353.2	Nitrate/Nitrite as N	4.06	mg/L	0.050	0.024		W425096	ARP	06/18/14 12:06
SM 2320B	Total Alkalinity	489	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:50
SM 2320B	Bicarbonate	489	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:50
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 11:50
SM 2540 C	Total Diss. Solids	619	mg/L	10			W424126	JDM	06/12/14 18:30
SM 4500-P-E	Phosphorus	0.064	mg/L	0.010	0.003		W426056	SM	06/24/14 15:13

Anions by Ion Chromatography

EPA 300.0	Chloride	14.6	mg/L	5.00	1.18	25	W425179	AEW	06/18/14 23:48	D2
EPA 300.0	Fluoride	0.27	mg/L	0.10	0.03		W425179	AEW	06/18/14 23:37	
EPA 300.0	Sulfate as SO ₄	89.1	mg/L	7.50	1.38	25	W425179	AEW	06/18/14 23:48	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/16/2014



65

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0190

Reported: 01-Jul-14 08:58

Client Sample ID: 14058

SVL Sample ID: W4F0190-05 (Ground Water)

Sample Report Page 1 of 1

Sampled: 08-Jun-14 10:50

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.044	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:21
EPA 353.2	Nitrate/Nitrite as N	1.35	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:43
SM 2320B	Total Alkalinity	386	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:01
SM 2320B	Bicarbonate	375	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:01
SM 2320B	Carbonate	10.3	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:01
SM 2540 C	Total Diss. Solids	432	mg/L	10			W424126	JDM	06/12/14 18:30
SM 4500-P-E	Phosphorus	0.046	mg/L	0.010	0.003		W426056	SM	06/24/14 15:13

Anions by Ion Chromatography

EPA 300.0	Chloride	10.6	mg/L	0.20	0.05		W425179	AEW	06/19/14 00:00
EPA 300.0	Fluoride	0.25	mg/L	0.10	0.03		W425179	AEW	06/19/14 00:00
EPA 300.0	Sulfate as SO ₄	45.6	mg/L	0.30	0.06		W425179	AEW	06/19/14 00:00

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

1st
9/16/2014



66

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0190

Reported: 01-Jul-14 08:58

Client Sample ID: 14059

SVL Sample ID: W4F0190-06 (Ground Water)

Sample Report Page 1 of 1

Sampled: 08-Jun-14 12:00

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:22	
EPA 353.2	Nitrate/Nitrite as N	2.34	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:44	
SM 2320B	Total Alkalinity	422	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:10	
SM 2320B	Bicarbonate	422	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:10	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:10	
SM 2540 C	Total Diss. Solids	483	mg/L	10			W424126	JDM	06/12/14 18:30	
SM 4500-P-E	Phosphorus	0.142	mg/L	0.010	0.003		W426056	SM	06/24/14 15:13	
Anions by Ion Chromatography										
EPA 300.0	Chloride	12.5	mg/L	5.00	1.18	25	W425179	AEW	06/19/14 00:34	D2
EPA 300.0	Fluoride	0.24	mg/L	0.10	0.03		W425179	AEW	06/19/14 00:22	
EPA 300.0	Sulfate as SO ₄	39.7	mg/L	0.30	0.06		W425179	AEW	06/19/14 00:22	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JST
9/16/2014



67

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
 Work Order: W4F0190
 Reported: 01-Jul-14 08:58

Client Sample ID: 14072

SVL Sample ID: W4F0190-07 (Ground Water)

Sample Report Page 1 of 1

Sampled: 09-Jun-14 09:30
 Received: 10-Jun-14
 Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:23	
EPA 353.2	Nitrate/Nitrite as N	5.95	mg/L	0.100	0.048	2	W425096	ARP	06/18/14 12:07	D2
SM 2320B	Total Alkalinity	402	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:18	
SM 2320B	Bicarbonate	387	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:18	
SM 2320B	Carbonate	14.4	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:18	
SM 2540 C	Total Diss. Solids	649	mg/L	10			W424126	JDM	06/12/14 18:30	
SM 4500-P-E	Phosphorus	0.069	mg/L	0.010	0.003		W426056	SM	06/24/14 15:13	

Anions by Ion Chromatography

EPA 300.0	Chloride	42.8	mg/L	5.00	1.18	25	W425179	AEW	06/19/14 01:20	D2
EPA 300.0	Fluoride	0.35	mg/L	0.10	0.03		W425179	AEW	06/19/14 01:08	
EPA 300.0	Sulfate as SO ₄	119	mg/L	7.50	1.38	25	W425179	AEW	06/19/14 01:20	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

J51
9/16/2014



68

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0190
Reported: 01-Jul-14 08:58

Client Sample ID: 14073

SVL Sample ID: W4F0190-08 (Ground Water)

Sample Report Page 1 of 1

Sampled: 09-Jun-14 10:40
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.035	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:25
EPA 353.2	Nitrate/Nitrite as N	3.75	mg/L	0.050	0.024		W425096	ARP	06/18/14 11:47
SM 2320B	Total Alkalinity	861	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:28
SM 2320B	Bicarbonate	861	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:28
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:28
SM 2540 C	Total Diss. Solids	1020	mg/L	10			W424126	JDM	06/12/14 18:30
SM 4500-P-E	Phosphorus	0.218	mg/L	0.010	0.003		W426056	SM	06/24/14 15:13

Anions by Ion Chromatography

EPA 300.0	Chloride	20.5	mg/L	5.00	1.18	25	W425179	AEW	06/19/14 01:42	D2
EPA 300.0	Fluoride	3.64	mg/L	0.10	0.03		W425179	AEW	06/19/14 01:31	
EPA 300.0	Sulfate as SO ₄	88.5	mg/L	7.50	1.38	25	W425179	AEW	06/19/14 01:42	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/16/2014



69

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0190

Reported: 01-Jul-14 08:58

Client Sample ID: 14050

SVL Sample ID: W4F0190-09 (Ground Water)

Sample Report Page 1 of 1

Sampled: 07-Jun-14 10:30

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425138	ARP	06/24/14 11:31	
EPA 353.2	Nitrate/Nitrite as N	5.31	mg/L	0.100	0.048	2	W425096	ARP	06/18/14 12:08	D2
SM 2320B	Total Alkalinity	385	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:42	
SM 2320B	Bicarbonate	385	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:42	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424124	AGF	06/11/14 12:42	
SM 2540 C	Total Diss. Solids	2960	mg/L	40			W424126	JDM	06/12/14 18:30	D1
SM 4500-P-E	Phosphorus	7.26	mg/L	0.100	0.033	10	W426056	SM	06/24/14 15:13	D2

Anions by Ion Chromatography

EPA 300.0	Chloride	502	mg/L	20.0	4.70	100	W425179	AEG	06/19/14 02:05	D2
EPA 300.0	Fluoride	3.90	mg/L	0.50	0.14	5	W425179	AEG	06/19/14 01:54	D1
EPA 300.0	Sulfate as SO ₄	1170	mg/L	30.0	5.50	100	W425179	AEG	06/19/14 02:05	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

*101
all b12 du*

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0192 Method Type: _____

Sample ID: W4F0192-01

Client ID: 14062

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	884000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	180000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	106000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.4	ug/L	J		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	3.7	ug/L	J		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	9180	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	81.0	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01
7440-23-5	Sodium	46800	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Jed
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0192 Method Type: _____

Sample ID: W4F0192-02

Client ID: 14063

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	984000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	193000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	122000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	6.4	ug/L	J		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	10900	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	135	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01
7440-23-5	Sodium	58600	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.7	ug/L	J		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSL
6/10/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0192 Method Type: _____

Sample ID: W4F0192-03

Client ID: 14064

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	973000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	191000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	120000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	6.4	ug/L	J	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	10900	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	138	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	58400	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	4.5	ug/L	J	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

J51
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0192 Method Type: _____

Sample ID: W4F0192-04

Client ID: 14065

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1090000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	211000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	137000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.7	ug/L	J		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	3.8	ug/L	J		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	10200	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	88.0	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01
7440-23-5	Sodium	44500	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0192 Method Type: _____

Sample ID: W4F0192-05

Client ID: 14066

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1110000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	213000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	139000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	2.4	ug/L	J		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	10300	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	88.0	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01
7440-23-5	Sodium	45200	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS/
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0192

Method Type: _____

Sample ID: W4F0192-06

Client ID: 14067

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	851000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	170000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	104000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	9390	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	31.0	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	35800	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	3.2	ug/L	U	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
6/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0192 Method Type: _____

Sample ID: W4F0192-07

Client ID: 14069

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: _____ Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1120000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	2.4	ug/L		P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	221000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	138000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	43.5	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	21200	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	377	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	99900	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	2.9	ug/L	J	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	89.9	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

51
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0192 Method Type: _____

Sample ID: W4F0192-08

Client ID: 14071

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	994000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	181000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	132000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	42.4	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	19000	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	259	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F17f01	
7440-23-5	Sodium	80500	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	2.4	ug/L	J	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	6.7	ug/L	J	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JL
9/14/2014



45

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0192
Reported: 01-Jul-14 09:16

Client Sample ID: **14062**SVL Sample ID: **W4F0192-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 08-Jun-14 13:15
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:42	R2B
EPA 353.2	Nitrate/Nitrite as N	6.85	mg/L	0.100	0.048	2	W424236	ARP	06/18/14 13:38	D2
SM 2320B	Total Alkalinity	615	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:33	
SM 2320B	Bicarbonate	615	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:33	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:33	
SM 2540 C	Total Diss. Solids	1050	mg/L	10			W424126	JDM	06/12/14 18:30	
SM 4500-P-E	Phosphorus	0.293	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25	

Anions by Ion Chromatography

EPA 300.0	Chloride	62.7	mg/L	5.00	1.18	25	W425234	AEW	06/19/14 20:26	D2,M3
EPA 300.0	Fluoride	0.62	mg/L	0.10	0.03		W425234	AEW	06/19/14 20:15	
EPA 300.0	Sulfate as SO ₄	248	mg/L	7.50	1.38	25	W425234	AEW	06/19/14 20:26	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS¹
9/16/2014



4/6

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0192
Reported: 01-Jul-14 09:16

Client Sample ID: **14063**SVL Sample ID: **W4F0192-02 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 08-Jun-14 13:45
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:43	
EPA 353.2	Nitrate/Nitrite as N	6.98	mg/L	0.100	0.048	2	W424236	ARP	06/18/14 14:05	D2
SM 2320B	Total Alkalinity	611	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:38	
SM 2320B	Bicarbonate	611	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:38	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:38	
SM 2540 C	Total Diss. Solids	1260	mg/L	10			W424126	JDM	06/12/14 18:30	
SM 4500-P-E	Phosphorus	0.193	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25	

Anions by Ion Chromatography

EPA 300.0	Chloride	78.8	mg/L	5.00	1.18	25	W425234	AEG	06/19/14 22:16	D2
EPA 300.0	Fluoride	0.73	mg/L	0.10	0.03		W425234	AEG	06/19/14 22:05	
EPA 300.0	Sulfate as SO ₄	342	mg/L	7.50	1.38	25	W425234	AEG	06/19/14 22:16	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS1
9/16/2014



47

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0192
Reported: 01-Jul-14 09:16

Client Sample ID: **14064**SVL Sample ID: **W4F0192-03 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 08-Jun-14 14:00

Received: 10-Jun-14

Sampled By: DH

Notes

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed
--------	---------	--------	-------	----	-----	----------	-------	---------	----------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.033	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:50
EPA 353.2	Nitrate/Nitrite as N	6.99	mg/L	0.100	0.048	2	W424236	ARP	06/18/14 14:06
SM 2320B	Total Alkalinity	611	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:43
SM 2320B	Bicarbonate	611	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:43
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:43
SM 2540 C	Total Diss. Solids	1270	mg/L	10			W424126	JDM	06/12/14 18:30
SM 4500-P-E	Phosphorus	0.092	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25

Anions by Ion Chromatography

EPA 300.0	Chloride	79.5	mg/L	5.00	1.18	25	W425234	AEW	06/19/14 22:39
EPA 300.0	Fluoride	0.74	mg/L	0.10	0.03		W425234	AEW	06/19/14 22:28
EPA 300.0	Sulfate as SO ₄	343	mg/L	7.50	1.38	25	W425234	AEW	06/19/14 22:39

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/16/2014



48

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0192

Reported: 01-Jul-14 09:16

Client Sample ID: **14065**

Sampled: 08-Jun-14 14:15

SVL Sample ID: **W4F0192-04 (Ground Water)**

Received: 10-Jun-14

Sample Report Page 1 of 1

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:51
EPA 353.2	Nitrate/Nitrite as N	4.73	mg/L	0.050	0.024		W424236	ARP	06/18/14 13:43
SM 2320B	Total Alkalinity	815	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:48
SM 2320B	Bicarbonate	815	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:48
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:48
SM 2540 C	Total Diss. Solids	1220	mg/L	10			W424126	JDM	06/12/14 18:30
SM 4500-P-E	Phosphorus	0.112	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25

Anions by Ion Chromatography

EPA 300.0	Chloride	59.7	mg/L	5.00	1.18	25	W425234	AEW	06/19/14 23:01	D2
EPA 300.0	Fluoride	0.11	mg/L	0.10	0.03		W425234	AEW	06/19/14 22:50	
EPA 300.0	Sulfate as SO ₄	257	mg/L	7.50	1.38	25	W425234	AEW	06/19/14 23:01	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/16/2014



49

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0192
Reported: 01-Jul-14 09:16

Client Sample ID: **14066**SVL Sample ID: **W4F0192-05 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 08-Jun-14 14:30
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.035	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:53
EPA 353.2	Nitrate/Nitrite as N	4.74	mg/L	0.050	0.024		W424236	ARP	06/18/14 13:45
SM 2320B	Total Alkalinity	805	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:53
SM 2320B	Bicarbonate	805	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:53
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:53
SM 2540 C	Total Diss. Solids	1310	mg/L	10			W424126	JDM	06/12/14 18:30
SM 4500-P-E	Phosphorus	0.110	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25

Anions by Ion Chromatography

EPA 300.0	Chloride	59.9	mg/L	5.00	1.18	25	W425234	AEG	06/19/14 23:23	D2
EPA 300.0	Fluoride	0.11	mg/L	0.10	0.03		W425234	AEG	06/19/14 23:12	
EPA 300.0	Sulfate as SO ₄	258	mg/L	7.50	1.38	25	W425234	AEG	06/19/14 23:23	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JP
9/16/2014



50

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0192
Reported: 01-Jul-14 09:16

Client Sample ID: **14067**SVL Sample ID: **W4F0192-06 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 08-Jun-14 15:20
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.037	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:54
EPA 353.2	Nitrate/Nitrite as N	4.26 ✓	mg/L	0.050	0.024		W424236	ARP	06/18/14 13:46
SM 2320B	Total Alkalinity	639	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:59
SM 2320B	Bicarbonate	639	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:59
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 13:59
SM 2540 C	Total Diss. Solids	1000	mg/L	10			W424126	JDM	06/12/14 18:30
SM 4500-P-E	Phosphorus	0.111 ✓	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25

Anions by Ion Chromatography

EPA 300.0	Chloride	51.7 ✓	mg/L	5.00	1.18	25	W425234	AEW	06/19/14 23:45	D2
EPA 300.0	Fluoride	0.70 ✓	mg/L	0.10	0.03		W425234	AEW	06/19/14 23:34	
EPA 300.0	Sulfate as SO ₄	171	mg/L	7.50	1.38	25	W425234	AEW	06/19/14 23:45	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JSL

JSL
July 16, 2014



51

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0192
Reported: 01-Jul-14 09:16

Client Sample ID: **14069**SVL Sample ID: **W4F0192-07 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 08-Jun-14 16:05

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:55	
EPA 353.2	Nitrate/Nitrite as N	9.62	mg/L	0.100	0.048	2	W424236	ARP	06/18/14 14:20	D2
SM 2320B	Total Alkalinity	484	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:04	
SM 2320B	Bicarbonate	484	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:04	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:04	
SM 2540 C	Total Diss. Solids	1590	mg/L	40			W424126	JDM	06/12/14 18:30	D1
SM 4500-P-E	Phosphorus	0.215	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25	

Anions by Ion Chromatography

EPA 300.0	Chloride	135	mg/L	5.00	1.18	25	W425234	AEW	06/20/14 00:29	D2
EPA 300.0	Fluoride	2.33 B	mg/L	0.10	0.03		W425234	AEW	06/20/14 00:18	
EPA 300.0	Sulfate as SO ₄	630 B	mg/L	7.50	1.38	25	W425234	AEW	06/20/14 00:29	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

J51
9/16/2014



52

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0192

Reported: 01-Jul-14 09:16

Client Sample ID: **14071**

Sampled: 08-Jun-14 17:00

SVL Sample ID: **W4F0192-08 (Ground Water)**

Received: 10-Jun-14

Sample Report Page 1 of 1

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:57	
EPA 353.2	Nitrate/Nitrite as N	6.33	mg/L	0.100	0.048	2	W424236	ARP	06/18/14 14:22	D2
SM 2320B	Total Alkalinity	533	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:09	
SM 2320B	Bicarbonate	533	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:09	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:09	
SM 2540 C	Total Diss. Solids	1420	mg/L	10			W424126	JDM	06/12/14 18:30	
SM 4500-P-E	Phosphorus	0.175	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25	

Anions by Ion Chromatography

EPA 300.0	Chloride	107	mg/L	5.00	1.18	25	W425234	AEG	06/20/14 00:51	D2
EPA 300.0	Fluoride	2.76	mg/L	0.10	0.03		W425234	AEG	06/20/14 00:40	
EPA 300.0	Sulfate as SO ₄	469	mg/L	7.50	1.38	25	W425234	AEG	06/20/14 00:51	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JSJ
6/16/2014

SVL Analytical, Inc.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0193 Method Type: _____

Sample ID: W4F0193-07

Client ID: 14021

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1070000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	24.8	ug/L		P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	181000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	150000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	91.7	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	30600	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	397	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	102000	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	13.1	ug/L		P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	383	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: _____

Comments: _____

JST
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0193 Method Type: _____

Sample ID: W4F0193-06

Client ID: 14022

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1230000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	57700	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	265000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	161	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	20700	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	0.52	ug/L	U	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00	
7440-23-5	Sodium	46400	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	3.2	ug/L	U	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

Jcl
6/10/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0193 Method Type: _____

Sample ID: W4F0193-05

Client ID: 14024

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/10/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	946000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	137000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	147000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	37.9	ug/L			P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	12900	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	267	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00
7440-23-5	Sodium	58800	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	5.2	ug/L			P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	10.6	ug/L			P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSI
9/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0193 Method Type: _____

Sample ID: W4F0193-08

Client ID: 14025

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	465000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	113000	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	44600	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	53.5	ug/L		P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	3500	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	3.6	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18100	
7440-23-5	Sodium	21200	ug/L		P	65.0	500	1	THERMO3	14175A	
7440-62-2	Vanadium	143	ug/L		P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	3.2	ug/L	U	P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JSL
7/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0193 Method Type: _____

Sample ID: W4F0193-09	Client ID: 14027
-----------------------	------------------

Contract: _____	Lab Code: SVL	Case No.: _____	SAS No.: _____
-----------------	---------------	-----------------	----------------

Matrix: WATER	Date Received: 6/10/2014	Level: LOW
---------------	--------------------------	------------

% Solids: _____	Total/Dissolved: _____	Total Recoverable: _____
-----------------	------------------------	--------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1120000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	12.1	ug/L			P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	221000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	138000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	55.0	ug/L			P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	24600	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	299	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00
7440-23-5	Sodium	96300	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	2.9	ug/L	J		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	124	ug/L			P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS	Clarity Before: CLEAR	Texture: _____
Color After: COLORLESS	Clarity After: CLEAR	Artifacts: _____

Comments: _____

Jd
6/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0193 Method Type: _____

Sample ID: <u>W4F0193-03</u>	Client ID: <u>14031</u>
------------------------------	-------------------------

Contract: _____	Lab Code: <u>SVL</u>	Case No.: _____	SAS No.: _____
-----------------	----------------------	-----------------	----------------

Matrix: <u>WATER</u>	Date Received: <u>6/10/2014</u>	Level: <u>LOW</u>
----------------------	---------------------------------	-------------------

% Solids: _____	Total/Dissolved: _____	Total Recoverable: _____
-----------------	------------------------	--------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1090000	ug/L		P	443	923	1	THERMO3	14175A	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14175A	
7440-70-2	Calcium	94100	ug/L		P	29.0	40.0	1	THERMO3	14175A	
7439-95-4	Magnesium	209000	ug/L		P	90.0	200	1	THERMO3	14175A	
7439-96-5	Manganese	495	ug/L		P	1.3	4.0	1	THERMO3	14175A	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	THERMO3	14175A	
7440-09-7	Potassium	16100	ug/L		P	170	500	1	THERMO3	14175A	
7782-49-2	Selenium	0.52	ug/L	U	MS	0.52	2.0	1	THERMO3	14175A	
7440-23-5	Sodium	39300	ug/L		P	65.0	500	1	AGILENT 7700 ICPMS	14F18i00	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14175A	
7440-66-6	Zinc	15.2	ug/L		P	3.2	10.0	1	THERMO3	14175A	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JBL
9/16/2014

SVL Analytical, Inc.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0193 Method Type: _____

Sample ID: W4F0193-01

Client ID: 14032

Contract: _____

Lab Code: SVL

Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1170000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	69000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	242000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	5210	ug/L			P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	2.8	ug/L	J		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	14700	ug/L			P	170	500	1	THERMO3	AGILENT 7700 ICPMS 14F18i00
7782-49-2	Selenium	0.52	ug/L	U		MS	0.52	2.0	1	THERMO3	14175A
7440-23-5	Sodium	33300	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	21.3	ug/L			P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: _____

Comments: _____

Jd 6/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0193 Method Type: _____

Sample ID: W4F0193-02

Client ID: 14033

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids: _____

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1020000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	188000	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	133000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	53.4	ug/L			P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	21500	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	316	ug/L			MS	0.52	2.0	1	THERMO3	14175A
7440-23-5	Sodium	89700	ug/L			P	65.0	500	1	AGILENT 7700 ICPMS	14F18i00
7440-62-2	Vanadium	2.9	ug/L	J		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	9.5	ug/L	J		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS
6/16/2014

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0193

Method Type: _____

Sample ID: W4F0193-04

Client ID: 14034

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/10/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1400000	ug/L			P	443	923	1	THERMO3	14175A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14175A
7440-70-2	Calcium	53700	ug/L			P	29.0	40.0	1	THERMO3	14175A
7439-95-4	Magnesium	308000	ug/L			P	90.0	200	1	THERMO3	14175A
7439-96-5	Manganese	98.7	ug/L			P	1.3	4.0	1	THERMO3	14175A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14175A
7440-09-7	Potassium	21900	ug/L			P	170	500	1	THERMO3	14175A
7782-49-2	Selenium	0.52	ug/L	U		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14F18i00
7440-23-5	Sodium	48500	ug/L			P	65.0	500	1	THERMO3	14175A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14175A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14175A

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: _____

Comments: _____

✓
6/16/2014



48

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-II01-002.002
Work Order: W4F0193
Reported: 01-Jul-14 09:51

Client Sample ID: **14032**SVL Sample ID: **W4F0193-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 05-Jun-14 10:10
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.488	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:58	M2
EPA 353.2	Nitrate/Nitrite as N	0.351	mg/L	0.050	0.024		W424236	ARP	06/18/14 14:23	
SM 2320B	Total Alkalinity	1140	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:14	
SM 2320B	Bicarbonate	1140	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:14	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:14	
SM 2540 C	Total Diss. Solids	1080	mg/L	40			W424125	RS	06/11/14 12:56	D1
SM 4500-P-E	Phosphorus	0.293	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25	
Anions by Ion Chromatography										
EPA 300.0	Chloride	19.6	mg/L	1.00	0.24	5	W425235	AEW	06/19/14 12:31	D2,M3
EPA 300.0	Fluoride	1.02	mg/L	0.10	0.03		W425235	AEW	06/19/14 18:03	M1
EPA 300.0	Sulfate as SO ₄	80.1	mg/L	1.50	0.28	5	W425235	AEW	06/19/14 12:31	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee

Kirby Gray
Technical Director

JSL
7/16/2014



49

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-II01-002.002
Work Order: W4F0193
Reported: 01-Jul-14 09:51

Client Sample ID: **14033**SVL Sample ID: **W4F0193-02 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 05-Jun-14 12:20
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.031	mg/L	0.030	0.022		W425137	ARP	06/24/14 11:59	
EPA 353.2	Nitrate/Nitrite as N	7.13	mg/L	0.100	0.048	2	W424236	ARP	06/18/14 14:24	D2
SM 2320B	Total Alkalinity	504	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:23	
SM 2320B	Bicarbonate	504	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:23	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:23	
SM 2540 C	Total Diss. Solids	1430	mg/L	40			W424125	RS	06/11/14 12:56	D1
SM 4500-P-E	Phosphorus	0.193	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25	

Anions by Ion Chromatography

EPA 300.0	Chloride	115	mg/L	10.0	2.35	50	W425235	AEW	06/19/14 14:33	D2
EPA 300.0	Fluoride	2.68	mg/L	0.50	0.14	5	W425235	AEW	06/19/14 14:22	D1
EPA 300.0	Sulfate as SO ₄	505	mg/L	15.0	2.75	50	W425235	AEW	06/19/14 14:33	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee

Kirby Gray
Technical Director

JSL
7/16/2014



50

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-II01-002.002
Work Order: W4F0193
Reported: 01-Jul-14 09:51

Client Sample ID: **14031**SVL Sample ID: **W4F0193-03 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 05-Jun-14 09:00

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.610	mg/L	0.030	0.022		W425137	ARP	06/24/14 12:01
EPA 353.2	Nitrate/Nitrite as N	0.352	mg/L	0.050	0.024		W424236	ARP	06/18/14 14:26
SM 2320B	Total Alkalinity	1050	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:32
SM 2320B	Bicarbonate	1050	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:32
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:32
SM 2540 C	Total Diss. Solids	1170	mg/L	10			W424125	RS	06/11/14 12:56
SM 4500-P-E	Phosphorus	0.552	mg/L	0.010	0.003		W426089	SM	06/24/14 15:13

Anions by Ion Chromatography

EPA 300.0	Chloride	24.4	mg/L	1.00	0.24	5	W425235	AEW	06/19/14 14:44	D2
EPA 300.0	Fluoride	1.04	mg/L	0.10	0.03		W425235	AEW	06/19/14 18:47	
EPA 300.0	Sulfate as SO ₄	101	mg/L	1.50	0.28	5	W425235	AEW	06/19/14 14:44	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee

Kirby Gray
Technical Director

JSL
9/16/2014



51

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-II01-002.002
Work Order: W4F0193
Reported: 01-Jul-14 09:51

Client Sample ID: **14034**SVL Sample ID: **W4F0193-04 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 05-Jun-14 14:15
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.730	mg/L	0.030	0.022		W425137	ARP	06/24/14 12:02	
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.024		W424236	ARP	06/18/14 14:07	
SM 2320B	Total Alkalinity	1360	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:39	
SM 2320B	Bicarbonate	1360	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:39	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:39	
SM 2540 C	Total Diss. Solids	1370	mg/L	40			W424125	RS	06/11/14 12:56	D1
SM 4500-P-E	Phosphorus	0.946	mg/L	0.100	0.033	10	W426029	SM	06/24/14 12:25	D2

Anions by Ion Chromatography

EPA 300.0	Chloride	18.9	mg/L	1.00	0.24	5	W425235	AEW	06/19/14 15:06	D2
EPA 300.0	Fluoride	< 0.10	mg/L	0.10	0.03		W425235	AEW	06/19/14 18:58	
EPA 300.0	Sulfate as SO ₄	80.9	mg/L	1.50	0.28	5	W425235	AEW	06/19/14 15:06	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee

Kirby Gray
Technical Director

Jel
9/16/2014



52

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0193
Reported: 01-Jul-14 09:51

Client Sample ID: **14024**SVL Sample ID: **W4F0193-05 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 03-Jun-14 17:20

Received: 10-Jun-14

Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425137	ARP	06/24/14 12:09	
EPA 353.2	Nitrate/Nitrite as N	6.02	mg/L	0.100	0.048	2	W424236	ARP	06/18/14 14:27	D2
SM 2320B	Total Alkalinity	772	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:48	
SM 2320B	Bicarbonate	772	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:48	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:48	
SM 2540 C	Total Diss. Solids	1100	mg/L	10			W424090	JDM	06/10/14 16:35	
SM 4500-P-E	Phosphorus	0.308	mg/L	0.010	0.003		W426089	SM	06/24/14 15:13	

Anions by Ion Chromatography

EPA 300.0	Chloride	54.6	mg/L	5.00	1.18	25	W425235	AEW	06/19/14 15:39	D2
EPA 300.0	Fluoride	2.47	mg/L	0.10	0.03		W425235	AEW	06/19/14 15:28	
EPA 300.0	Sulfate as SO ₄	166	mg/L	7.50	1.38	25	W425235	AEW	06/19/14 15:39	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee

Kirby Gray
Technical Director



9/16/2014



53

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-II01-002.002
Work Order: W4F0193
Reported: 01-Jul-14 09:51

Client Sample ID: **14022**SVL Sample ID: **W4F0193-06 (Ground Water)****Sample Report Page 1 of 1**Sampled: 03-Jun-14 16:30
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.304	mg/L	0.030	0.022		W425137	ARP	06/24/14 12:10
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.024		W424236	ARP	06/18/14 14:34
SM 2320B	Total Alkalinity	1120	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:53
SM 2320B	Bicarbonate	1120	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:53
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 14:53
SM 2540 C	Total Diss. Solids	1290	mg/L	10			W424090	JDM	06/10/14 16:35
SM 4500-P-E	Phosphorus	0.412	mg/L	0.010	0.003		W426089	SM	06/24/14 15:13

Anions by Ion Chromatography

EPA 300.0	Chloride	30.8	mg/L	1.00	0.24	5	W425235	AEG	06/19/14 16:12	D2
EPA 300.0	Fluoride	< 0.10	mg/L	0.10	0.03		W425235	AEG	06/19/14 19:09	
EPA 300.0	Sulfate as SO ₄	140	mg/L	1.50	0.28	5	W425235	AEG	06/19/14 16:12	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee

Kirby Gray
Technical Director



54

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-II01-002.002
Work Order: W4F0193
Reported: 01-Jul-14 09:51

Client Sample ID: **14021**SVL Sample ID: **W4F0193-07 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 03-Jun-14 16:05
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W425137	ARP	06/24/14 12:11	
EPA 353.2	Nitrate/Nitrite as N	6.65	mg/L	0.100	0.048	2	W424236	ARP	06/18/14 14:36	D2
SM 2320B	Total Alkalinity	510	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 15:00	
SM 2320B	Bicarbonate	510	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 15:00	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 15:00	
SM 2540 C	Total Diss. Solids	1520	mg/L	10			W424090	JDM	06/10/14 16:35	
SM 4500-P-E	Phosphorus	0.204	mg/L	0.010	0.003		W426089	SM	06/24/14 15:13	

Anions by Ion Chromatography

EPA 300.0	Chloride	127	mg/L	5.00	1.18	25	W425235	AEW	06/19/14 16:45	D2
EPA 300.0	Fluoride	4.63	mg/L	0.10	0.03		W425235	AEW	06/19/14 16:34	
EPA 300.0	Sulfate as SO ₄	534	mg/L	7.50	1.38	25	W425235	AEW	06/19/14 16:45	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee

Kirby Gray
Technical Director

9/16/2014



55

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-II01-002.002

Work Order: W4F0193

Reported: 01-Jul-14 09:51

Client Sample ID: **14025**SVL Sample ID: **W4F0193-08 (Ground Water)**

Sample Report Page 1 of 1

 Sampled: 04-Jun-14 10:00
 Received: 10-Jun-14
 Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.043	mg/L	0.030	0.022		W425137	ARP	06/24/14 12:13	
EPA 353.2	Nitrate/Nitrite as N	3.91	mg/L	0.050	0.024		W424236	ARP	06/18/14 14:37	
SM 2320B	Total Alkalinity	379	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 15:06	
SM 2320B	Bicarbonate	379	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 15:06	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 15:06	
SM 2540 C	Total Diss. Solids	551	mg/L	10			W424125	RS	06/11/14 12:56	
SM 4500-P-E	Phosphorus	0.121	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25	
Anions by Ion Chromatography										
EPA 300.0	Chloride	37.5	mg/L	5.00	1.18	25	W425235	AEW	06/19/14 17:07	D2
EPA 300.0	Fluoride	0.33	mg/L	0.10	0.03		W425235	AEW	06/19/14 16:56	
EPA 300.0	Sulfate as SO ₄	54.0	mg/L	7.50	1.38	25	W425235	AEW	06/19/14 17:07	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee

Kirby Gray
Technical Director



56

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0193
Reported: 01-Jul-14 09:51

Client Sample ID: **14027**SVL Sample ID: **W4F0193-09 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 04-Jun-14 12:00
Received: 10-Jun-14
Sampled By: DH

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.045	mg/L	0.030	0.022		W425137	ARP	06/24/14 12:14	
EPA 353.2	Nitrate/Nitrite as N	15.0	mg/L	0.250	0.120	5	W424236	ARP	06/18/14 14:58	D2
SM 2320B	Total Alkalinity	403	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 15:10	
SM 2320B	Bicarbonate	403	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 15:10	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W424122	AGF	06/11/14 15:10	
SM 2540 C	Total Diss. Solids	1660	mg/L	40			W424125	RS	06/11/14 12:56	D1
SM 4500-P-E	Phosphorus	0.176	mg/L	0.010	0.003		W426029	SM	06/24/14 12:25	
Anions by Ion Chromatography										
EPA 300.0	Chloride	120	mg/L	10.0	2.35	50	W425235	AEW	06/19/14 17:30	D2
EPA 300.0	Fluoride	2.76	mg/L	0.10	0.03		W425235	AEW	06/19/14 19:20	
EPA 300.0	Sulfate as SO ₄	660	mg/L	15.0	2.75	50	W425235	AEW	06/19/14 17:30	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee

Kirby Gray
Technical Director

JSL
2/16/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0343 Method Type: _____

Sample ID: W4F0343-01

Client ID: 14112

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.82	ug/L	J		P	0.69	2.0	1	THERMO3	14181B
7440-70-2	Calcium	123000	ug/L			P	29.3	40.4	1	THERMO3	14181B
7439-95-4	Magnesium	138000	ug/L			P	90.9	202	1	THERMO3	14181B
7439-96-5	Manganese	99.7	ug/L			P	1.3	4.0	1	THERMO3	14181B
7439-98-7	Molybdenum	12.5	ug/L			P	2.7	8.1	1	THERMO3	14181B
7440-09-7	Potassium	13000	ug/L			P	172	505	1	THERMO3	14181B
7782-49-2	Selenium	17.2	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	42800	ug/L			P	65.7	505	1	THERMO3	14181B
7440-62-2	Vanadium	2.4	ug/L	J		P	1.7	5.1	1	THERMO3	14181B
7440-66-6	Zinc	36.9	ug/L			P	3.2	10.1	1	THERMO3	14181B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

51
9/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0343 Method Type: _____

Sample ID: W4F0343-02

Client ID: 14113

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14181B
7440-70-2	Calcium	76500	ug/L			P	29.3	40.4	1	THERMO3	14181B
7439-95-4	Magnesium	77100	ug/L			P	90.9	202	1	THERMO3	14181B
7439-96-5	Manganese	89.8	ug/L			P	1.3	4.0	1	THERMO3	14181B
7439-98-7	Molybdenum	3.4	ug/L	J		P	2.7	8.1	1	THERMO3	14181B
7440-09-7	Potassium	8730	ug/L			P	172	505	1	THERMO3	14181B
7782-49-2	Selenium	1.0	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	51300	ug/L			P	65.7	505	1	THERMO3	14181B
7440-62-2	Vanadium	4.0	ug/L	J		P	1.7	5.1	1	THERMO3	14181B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14181B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JS
9/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0343 Method Type: _____

<u>Sample ID:</u> W4F0343-03	<u>Client ID:</u> 14114
------------------------------	-------------------------

<u>Contract:</u> _____	<u>Lab Code:</u> SVL	<u>Case No.:</u> _____	<u>SAS No.:</u> _____
------------------------	----------------------	------------------------	-----------------------

<u>Matrix:</u> WATER	<u>Date Received:</u> 6/17/2014	<u>Level:</u> LOW
----------------------	---------------------------------	-------------------

<u>% Solids:</u>	<u>Total/Dissolved:</u>	<u>Dissolved</u>
------------------	-------------------------	------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14181B
7440-70-2	Calcium	96000	ug/L			P	29.3	40.4	1	THERMO3	14181B
7439-95-4	Magnesium	101000	ug/L			P	90.9	202	1	THERMO3	14181B
7439-96-5	Manganese	73.1	ug/L			P	1.3	4.0	1	THERMO3	14181B
7439-98-7	Molybdenum	7.7	ug/L	J		P	2.7	8.1	1	THERMO3	14181B
7440-09-7	Potassium	10800	ug/L			P	172	505	1	THERMO3	14181B
7782-49-2	Selenium	11.1	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	53800	ug/L			P	65.7	505	1	THERMO3	14181B
7440-62-2	Vanadium	3.2	ug/L	J		P	1.7	5.1	1	THERMO3	14181B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14181B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JSL
6/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0343 Method Type: _____

Sample ID: W4F0343-04

Client ID: 14115

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14181B
7440-70-2	Calcium	129000	ug/L			P	29.3	40.4	1	THERMO3	14181B
7439-95-4	Magnesium	136000	ug/L			P	90.9	202	1	THERMO3	14181B
7439-96-5	Manganese	72.7	ug/L			P	1.3	4.0	1	THERMO3	14181B
7439-98-7	Molybdenum	12.4	ug/L			P	2.7	8.1	1	THERMO3	14181B
7440-09-7	Potassium	13800	ug/L			P	172	505	1	THERMO3	14181B
7782-49-2	Selenium	27.4	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	58800	ug/L			P	65.7	505	1	THERMO3	14181B
7440-62-2	Vanadium	2.9	ug/L	J		P	1.7	5.1	1	THERMO3	14181B
7440-66-6	Zinc	5.5	ug/L	J		P	3.2	10.1	1	THERMO3	14181B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JSL
6/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0343 Method Type: _____

Sample ID: W4F0343-05

Client ID: 14116

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14181B
7440-70-2	Calcium	132000	ug/L			P	29.3	40.4	1	THERMO3	14181B
7439-95-4	Magnesium	140000	ug/L			P	90.9	202	1	THERMO3	14181B
7439-96-5	Manganese	124	ug/L			P	1.3	4.0	1	THERMO3	14181B
7439-98-7	Molybdenum	13.6	ug/L			P	2.7	8.1	1	THERMO3	14181B
7440-09-7	Potassium	14100	ug/L			P	172	505	1	THERMO3	14181B
7782-49-2	Selenium	29.5	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	60300	ug/L			P	65.7	505	1	THERMO3	14181B
7440-62-2	Vanadium	2.7	ug/L	J		P	1.7	5.1	1	THERMO3	14181B
7440-66-6	Zinc	19.3	ug/L			P	3.2	10.1	1	THERMO3	14181B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JSL
9/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0343

Method Type:

Sample ID: W4F0343-06

Client ID: 14118

Contract:

Lab Code: SVL

Case No.:

SAS No.:

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14181B
7440-70-2	Calcium	127000	ug/L			P	29.3	40.4	1	THERMO3	14181B
7439-95-4	Magnesium	118000	ug/L			P	90.9	202	1	THERMO3	14181B
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14181B
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.1	1	THERMO3	14181B
7440-09-7	Potassium	7200	ug/L			P	172	505	1	THERMO3	14181B
7782-49-2	Selenium	37.4	ug/L	S	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	40500	ug/L			P	65.7	505	1	THERMO3	14181B
7440-62-2	Vanadium	3.6	ug/L	J		P	1.7	5.1	1	THERMO3	14181B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14181B

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JS
9/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0343 Method Type: _____

Sample ID: W4F0343-01

Client ID: 14112

Contract: _____ **Lab Code:** SVL **Case No.:** _____ **SAS No.:** _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	787000	ug/L			P	443	923	1	THERMO1	14181A
7440-43-9	Cadmium	2.7	ug/L			P	0.68	2.0	1	THERMO1	14181A
7440-70-2	Calcium	109000	ug/L			P	29.0	40.0	1	THERMO1	14181A
7439-95-4	Magnesium	125000	ug/L			P	90.0	200	1	THERMO1	14181A
7439-96-5	Manganese	104	ug/L			P	1.3	4.0	1	THERMO1	14181A
7439-98-7	Molybdenum	12.0	ug/L			P	2.7	8.0	1	THERMO1	14181A
7440-09-7	Potassium	12000	ug/L			P	170	500	1	THERMO1	14181A
7782-49-2	Selenium	17.1	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	39000	ug/L			P	65.0	500	1	THERMO1	14181A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO1	14181A
7440-66-6	Zinc	42.2	ug/L			P	3.2	10.0	1	THERMO1	14181A

Color Before: COLORLESS **Clarity Before:** CLEAR **Texture:** _____

Color After: COLORLESS **Clarity After:** CLEAR **Artifacts:** YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

*SL
7/19/2014*

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0343 Method Type: _____

Sample ID: W4F0343-02

Client ID: 14113

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	466000	ug/L			P	443	923	1	THERMO1	14181A
7440-43-9	Cadmium	1.0	ug/L	J		P	0.68	2.0	1	THERMO1	14181A
7440-70-2	Calcium	68700	ug/L			P	29.0	40.0	1	THERMO1	14181A
7439-95-4	Magnesium	71500	ug/L			P	90.0	200	1	THERMO1	14181A
7439-96-5	Manganese	104	ug/L			P	1.3	4.0	1	THERMO1	14181A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO1	14181A
7440-09-7	Potassium	8170	ug/L			P	170	500	1	THERMO1	14181A
7782-49-2	Selenium	1.0	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	47400	ug/L			P	65.0	500	1	THERMO1	14181A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO1	14181A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO1	14181A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JST
9/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0343

Method Type:

Sample ID: W4F0343-03

Client ID: 14114

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	598000	ug/L			P	443	923	1	THERMO1	14181A
7440-43-9	Cadmium	1.0	ug/L	J		P	0.68	2.0	1	THERMO1	14181A
7440-70-2	Calcium	85600	ug/L			P	29.0	40.0	1	THERMO1	14181A
7439-95-4	Magnesium	93300	ug/L			P	90.0	200	1	THERMO1	14181A
7439-96-5	Manganese	79.5	ug/L			P	1.3	4.0	1	THERMO1	14181A
7439-98-7	Molybdenum	5.9	ug/L	J		P	2.7	8.0	1	THERMO1	14181A
7440-09-7	Potassium	10000	ug/L			P	170	500	1	THERMO1	14181A
7782-49-2	Selenium	11.8	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	48900	ug/L			P	65.0	500	1	THERMO1	14181A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO1	14181A
7440-66-6	Zinc	6.8	ug/L	J		P	3.2	10.0	1	THERMO1	14181A

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JS
9/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0343

Method Type: _____

Sample ID: W4F0343-04

Client ID: 14115

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	802000	ug/L			P	443	923	1	THERMO1	14181A
7440-43-9	Cadmium	1.3	ug/L	J		P	0.68	2.0	1	THERMO1	14181A
7440-70-2	Calcium	115000	ug/L			P	29.0	40.0	1	THERMO1	14181A
7439-95-4	Magnesium	125000	ug/L			P	90.0	200	1	THERMO1	14181A
7439-96-5	Manganese	84.6	ug/L			P	1.3	4.0	1	THERMO1	14181A
7439-98-7	Molybdenum	11.1	ug/L			P	2.7	8.0	1	THERMO1	14181A
7440-09-7	Potassium	12900	ug/L			P	170	500	1	THERMO1	14181A
7782-49-2	Selenium	28.1	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	53800	ug/L			P	65.0	500	1	THERMO1	14181A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO1	14181A
7440-66-6	Zinc	16.0	ug/L			P	3.2	10.0	1	THERMO1	14181A

Color Before: COLORLESS

Clarity Before: CLEAR

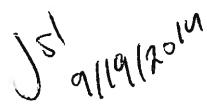
Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.


 JSL
 9/10/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0343

Method Type:

Sample ID: W4F0343-06

Client ID: 14118

Contract:

Lab Code: SVL

Case No.:

SAS No.:

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	742000	ug/L			P	443	923	1	THERMO1	14181A
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO1	14181A
7440-70-2	Calcium	114000	ug/L			P	29.0	40.0	1	THERMO1	14181A
7439-95-4	Magnesium	111000	ug/L			P	90.0	200	1	THERMO1	14181A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO1	14181A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO1	14181A
7440-09-7	Potassium	6780	ug/L			P	170	500	1	THERMO1	14181A
7782-49-2	Selenium	38.7	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	38500	ug/L			P	65.0	500	1	THERMO1	14181A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO1	14181A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO1	14181A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
 Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JS
6/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0343

Method Type: _____

Sample ID: W4F0343-05

Client ID: 14116

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	825000	ug/L			P	443	923	1	THERMO1	14181A
7440-43-9	Cadmium	1.5	ug/L	J		P	0.68	2.0	1	THERMO1	14181A
7440-70-2	Calcium	119000	ug/L			P	29.0	40.0	1	THERMO1	14181A
7439-95-4	Magnesium	128000	ug/L			P	90.0	200	1	THERMO1	14181A
7439-96-5	Manganese	128	ug/L			P	1.3	4.0	1	THERMO1	14181A
7439-98-7	Molybdenum	13.5	ug/L			P	2.7	8.0	1	THERMO1	14181A
7440-09-7	Potassium	13300	ug/L			P	170	500	1	THERMO1	14181A
7782-49-2	Selenium	32.0	ug/L	J	E	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	54900	ug/L			P	65.0	500	1	THERMO1	14181A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO1	14181A
7440-66-6	Zinc	24.6	ug/L			P	3.2	10.0	1	THERMO1	14181A

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

_____JSL
6/19/2014



72

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0343

Reported: 08-Jul-14 18:15

Client Sample ID: 14112

SVL Sample ID: W4F0343-01 (Surface Water)

Sample Report Page 1 of 1

Sampled: 13-Jun-14 13:45

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:26	
EPA 353.2	Nitrate/Nitrite as N	1.26	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:37	
SM 2320B	Total Alkalinity	839	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 12:50	
SM 2320B	Bicarbonate	839	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 12:50	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 12:50	
SM 2540 C	Total Diss. Solids	857	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.169	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	
Anions by Ion Chromatography										
EPA 300.0	Chloride	26.1	mg/L	5.00	1.18	25	W426169	AEW	06/26/14 22:57	D2,M3
EPA 300.0	Fluoride	0.73	mg/L	0.10	0.03		W426169	AEW	06/26/14 22:46	M2
EPA 300.0	Sulfate as SO ₄	60.9	mg/L	7.50	1.38	25	W426169	AEW	06/26/14 22:57	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JSI
9/19/2014



73

One Government Gulch - PO Box 929

Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0343

Reported: 08-Jul-14 18:15

Client Sample ID: **14113**SVL Sample ID: **W4F0343-02 (Surface Water)****Sample Report Page 1 of 1**

Sampled: 13-Jun-14 14:15

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:27	-
EPA 353.2	Nitrate/Nitrite as N	0.376	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:38	-
SM 2320B	Total Alkalinity	472	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 12:56	-
SM 2320B	Bicarbonate	472	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 12:56	-
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 12:56	-
SM 2540 C	Total Diss. Solids	599	mg/L	10			W425190	JDM	06/18/14 20:05	-
SM 4500-P-E	Phosphorus	0.100	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	-
Anions by Ion Chromatography										
EPA 300.0	Chloride	49.0	mg/L	5.00	1.18	25	W426169	AEW	06/27/14 00:46	D2
EPA 300.0	Fluoride	0.39	mg/L	0.10	0.03		W426169	AEW	06/27/14 00:35	-
EPA 300.0	Sulfate as SO ₄	46.7	mg/L	7.50	1.38	25	W426169	AEW	06/27/14 00:46	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JSI
a/19/2014



One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

74

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0343

Reported: 08-Jul-14 18:15

Client Sample ID: 14114

SVL Sample ID: W4F0343-03 (Surface Water)

Sample Report Page 1 of 1

Sampled: 13-Jun-14 15:00

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:29	
EPA 353.2	Nitrate/Nitrite as N	0.754	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:46	
SM 2320B	Total Alkalinity	612	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:00	
SM 2320B	Bicarbonate	612	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:00	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:00	
SM 2540 C	Total Diss. Solids	718	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.127	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	
Anions by Ion Chromatography										
EPA 300.0	Chloride	46.5	mg/L	5.00	1.18	25	W426169	AEW	06/27/14 01:08	D2
EPA 300.0	Fluoride	0.49	mg/L	0.10	0.03		W426169	AEW	06/27/14 00:57	
EPA 300.0	Sulfate as SO ₄	63.1	mg/L	7.50	1.38	25	W426169	AEW	06/27/14 01:08	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/19/2014



75

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0343

Reported: 08-Jul-14 18:15

Client Sample ID: 14115

SVL Sample ID: W4F0343-04 (Surface Water)

Sample Report Page 1 of 1

Sampled: 13-Jun-14 15:30
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.036	mg/L	0.030	0.022		W426077	ARP	07/01/14 15:01	
EPA 353.2	Nitrate/Nitrite as N	1.13	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:47	
SM 2320B	Total Alkalinity	752	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:06	
SM 2320B	Bicarbonate	752	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:06	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:06	
SM 2540 C	Total Diss. Solids	882	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.169	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	
Anions by Ion Chromatography										
EPA 300.0	Chloride	42.2	mg/L	5.00	1.18	25	W426169	AEW	06/27/14 01:30	D2
EPA 300.0	Fluoride	0.75	mg/L	0.10	0.03		W426169	AEW	06/27/14 01:19	
EPA 300.0	Sulfate as SO ₄	88.4	mg/L	7.50	1.38	25	W426169	AEW	06/27/14 01:30	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/19/2014



76

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0343
Reported: 08-Jul-14 18:15

Client Sample ID: 14116

SVL Sample ID: W4F0343-05 (Surface Water)

Sample Report Page 1 of 1

Sampled: 13-Jun-14 16:00
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.068	mg/L	0.030	0.022		W426077	ARP	07/01/14 15:02	
EPA 353.2	Nitrate/Nitrite as N	1.04	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:48	M1
SM 2320B	Total Alkalinity	828	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:15	
SM 2320B	Bicarbonate	828	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:15	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:15	
SM 2540 C	Total Diss. Solids	942	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.134	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	

Anions by Ion Chromatography

EPA 300.0	Chloride	39.9	mg/L	5.00	1.18	25	W426169	AEW	06/27/14 01:52	D2
EPA 300.0	Fluoride	0.83	mg/L	0.10	0.03		W426169	AEW	06/27/14 01:41	
EPA 300.0	Sulfate as SO ₄	84.5	mg/L	7.50	1.38	25	W426169	AEW	06/27/14 01:52	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JSI
9/19/2014



77

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0343

Reported: 08-Jul-14 18:15

Client Sample ID: **14118**SVL Sample ID: **W4F0343-06 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 13-Jun-14 16:30

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:33	
EPA 353.2	Nitrate/Nitrite as N	11.6	mg/L	0.250	0.110	5	W426086	ARP	07/02/14 17:50	D2
SM 2320B	Total Alkalinity	593	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:21	
SM 2320B	Bicarbonate	593	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:21	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:21	
SM 2540 C	Total Diss. Solids	863	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.135	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	

Anions by Ion Chromatography

EPA 300.0	Chloride	40.5	mg/L	5.00	1.18	25	W426169	AEW	06/27/14 02:14	D2
EPA 300.0	Fluoride	0.52	mg/L	0.10	0.03		W426169	AEW	06/27/14 02:03	
EPA 300.0	Sulfate as SO ₄	149	mg/L	7.50	1.38	25	W426169	AEW	06/27/14 02:14	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

sl
9/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: <u>W4F0345-01</u>	Client ID: <u>14105</u>
------------------------------	-------------------------

Contract: _____	Lab Code: <u>SVL</u>	Case No.: _____	SAS No.: _____
-----------------	----------------------	-----------------	----------------

Matrix: <u>WATER</u>	Date Received: <u>6/17/2014</u>	Level: <u>LOW</u>
----------------------	---------------------------------	-------------------

% Solids: _____	Total/Dissolved: <u>Dissolved</u>
-----------------	-----------------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	4.6	ug/L		P	0.69	2.0	1	Optima A	14181B-W425150	
7440-70-2	Calcium	108000	ug/L		P	29.3	40.4	1	Optima A	14181B-W425150	
7439-95-4	Magnesium	51800	ug/L		P	90.9	202	1	Optima A	14181B-W425150	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	Optima A	14181B-W425150	
7439-98-7	Molybdenum	25.5	ug/L		P	2.7	8.1	1	Optima A	14181B-W425150	
7440-09-7	Potassium	5470	ug/L		P	172	505	1	Optima A	14181B-W425150	
7782-49-2	Selenium	10.7	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B	
7440-23-5	Sodium	88100	ug/L		P	65.7	505	1	Optima A	14181B-W425150	
7440-62-2	Vanadium	52.7	ug/L		P	1.7	5.0	1	Optima A	14181B-W425150	
7440-66-6	Zinc	18.8	ug/L		P	3.2	10.1	1	Optima A	14181B-W425150	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-02

Client ID: 14106

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	Optima A	14181B-W425150
7440-70-2	Calcium	66800	ug/L			P	29.3	40.4	1	Optima A	14181B-W425150
7439-95-4	Magnesium	72600	ug/L			P	90.9	202	1	Optima A	14181B-W425150
7439-96-5	Manganese	97.4	ug/L			P	1.3	4.0	1	Optima A	14181B-W425150
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.1	1	Optima A	14181B-W425150
7440-09-7	Potassium	7890	ug/L			P	172	505	1	Optima A	14181B-W425150
7782-49-2	Selenium	0.23	ug/L	U		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	20900	ug/L			P	65.7	505	1	Optima A	14181B-W425150
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	Optima A	14181B-W425150
7440-66-6	Zinc	6.4	ug/L	J		P	3.2	10.1	1	Optima A	14181B-W425150

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

✓ Confirm w/ Raw

TB 8-31-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-03

Client ID: 14107

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	5.5	ug/L		P	0.69	2.0	1	Optima A	14181B-W425150	
7440-70-2	Calcium	127000	ug/L		P	29.3	40.4	1	Optima A	14181B-W425150	
7439-95-4	Magnesium	60100	ug/L		P	90.9	202	1	Optima A	14181B-W425150	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	Optima A	14181B-W425150	
7439-98-7	Molybdenum	24.9	ug/L		P	2.7	8.1	1	Optima A	14181B-W425150	
7440-09-7	Potassium	6500	ug/L		P	172	505	1	Optima A	14181B-W425150	
7782-49-2	Selenium	12.4	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B	
7440-23-5	Sodium	331000	ug/L		P	65.7	505	1	Optima A	14181B-W425150	
7440-62-2	Vanadium	52.3	ug/L		P	1.7	5.0	1	Optima A	14181B-W425150	
7440-66-6	Zinc	23.5	ug/L		P	3.2	10.1	1	Optima A	14181B-W425150	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

Confirmed w/ Raw

Tay 8-31-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-04

Client ID: 14108

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	5.2	ug/L			P	0.69	2.0	1	Optima A	14181B-W425150
7440-70-2	Calcium	122000	ug/L			P	29.3	40.4	1	Optima A	14181B-W425150
7439-95-4	Magnesium	58000	ug/L			P	90.9	202	1	Optima A	14181B-W425150
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	Optima A	14181B-W425150
7439-98-7	Molybdenum	24.2	ug/L			P	2.7	8.1	1	Optima A	14181B-W425150
7440-09-7	Potassium	6200	ug/L			P	172	505	1	Optima A	14181B-W425150
7782-49-2	Selenium	13.4	ug/L			MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	321000	ug/L			P	65.7	505	1	Optima A	14181B-W425150
7440-62-2	Vanadium	51.2	ug/L			P	1.7	5.0	1	Optima A	14181B-W425150
7440-66-6	Zinc	22.0	ug/L			P	3.2	10.1	1	Optima A	14181B-W425150

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

Confirmed w/ Raw

TMG 8-31-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-05

Client ID: 14109

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Dissolved _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	5.1	ug/L		P	0.69	2.0	1	Optima A	14181B-W425150	
7440-70-2	Calcium	126000	ug/L		P	29.3	40.4	1	Optima A	14181B-W425150	
7439-95-4	Magnesium	59700	ug/L		P	90.9	202	1	Optima A	14181B-W425150	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	Optima A	14181B-W425150	
7439-98-7	Molybdenum	22.6	ug/L		P	2.7	8.1	1	Optima A	14181B-W425150	
7440-09-7	Potassium	6440	ug/L		P	172	505	1	Optima A	14181B-W425150	
7782-49-2	Selenium	12.5	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B	
7440-23-5	Sodium	328000	ug/L		P	65.7	505	1	Optima A	14181B-W425150	
7440-62-2	Vanadium	51.2	ug/L		P	1.7	5.0	1	Optima A	14181B-W425150	
7440-66-6	Zinc	22.6	ug/L		P	3.2	10.1	1	Optima A	14181B-W425150	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-06

Client ID: 14110

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Dissolved: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	Optima A	14181B-W425150
7440-70-2	Calcium	65100	ug/L			P	29.3	40.4	1	Optima A	14181B-W425150
7439-95-4	Magnesium	70400	ug/L			P	90.9	202	1	Optima A	14181B-W425150
7439-96-5	Manganese	91.5	ug/L			P	1.3	4.0	1	Optima A	14181B-W425150
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.1	1	Optima A	14181B-W425150
7440-09-7	Potassium	7760	ug/L			P	172	505	1	Optima A	14181B-W425150
7782-49-2	Selenium	0.23	ug/L	U		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	22900	ug/L			P	65.7	505	1	Optima A	14181B-W425150
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	Optima A	14181B-W425150
7440-66-6	Zinc	5.8	ug/L	J		P	3.2	10.1	1	Optima A	14181B-W425150

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: <u>W4F0345-07</u>	Client ID: <u>14111</u>
------------------------------	-------------------------

Contract: _____	Lab Code: <u>SVL</u>	Case No.: _____	SAS No.: _____
-----------------	----------------------	-----------------	----------------

Matrix: <u>WATER</u>	Date Received: <u>6/17/2014</u>	Level: <u>LOW</u>
----------------------	---------------------------------	-------------------

% Solids:	Total/Dissolved:	<u>Dissolved</u>
-----------	------------------	------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	Optima A	14181B-W425150
7440-70-2	Calcium	78600	ug/L			P	29.3	40.4	1	Optima A	14181B-W425150
7439-95-4	Magnesium	84300	ug/L			P	90.9	202	1	Optima A	14181B-W425150
7439-96-5	Manganese	153	ug/L			P	1.3	4.0	1	Optima A	14181B-W425150
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.1	1	Optima A	14181B-W425150
7440-09-7	Potassium	8950	ug/L			P	172	505	1	Optima A	14181B-W425150
7782-49-2	Selenium	0.23	ug/L	U		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	24700	ug/L			P	65.7	505	1	Optima A	14181B-W425150
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	Optima A	14181B-W425150
7440-66-6	Zinc	9.9	ug/L	J		P	3.2	10.1	1	Optima A	14181B-W425150

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-01

Client ID: 14105

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	502000	ug/L			P	443	923	1	THERMO3	14180B
7440-43-9	Cadmium	4.7	ug/L		+T	P	0.68	2.0	1	THERMO3	14180B
7440-70-2	Calcium	114000	ug/L			P	29.0	40.0	1	THERMO3	14180B
7439-95-4	Magnesium	52400	ug/L			P	90.0	200	1	THERMO3	14180B
7439-96-5	Manganese	1.3	ug/L		U	P	1.3	4.0	1	THERMO3	14180B
7439-98-7	Molybdenum	31.8	ug/L			P	2.7	8.0	1	THERMO3	14180B
7440-09-7	Potassium	5810	ug/L			P	170	500	1	PE ICPMS DRC-E	14182B
7782-49-2	Selenium	10.2	ug/L		J	MS	0.23	2.0	1	THERMO3	14180B
7440-23-5	Sodium	90700	ug/L			P	65.0	500	1	THERMO3	14180B
7440-62-2	Vanadium	53.9	ug/L			P	1.7	5.0	1	THERMO3	14180B
7440-66-6	Zinc	14.9	ug/L			P	3.2	10.0	1	THERMO3	14180B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
 Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

✓ CONFIRMED w/ Raw

CCB contamination for Cd Qualifies results <10x Blank value (0.75)

Tay 8-31-14

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-02

Client ID: 14106

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	494000	ug/L		P	443	923	1	THERMO3	14180B	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14180B	
7440-70-2	Calcium	71700	ug/L		P	29.0	40.0	1	THERMO3	14180B	
7439-95-4	Magnesium	76500	ug/L		P	90.0	200	1	THERMO3	14180B	
7439-96-5	Manganese	123	ug/L		P	1.3	4.0	1	THERMO3	14180B	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	THERMO3	14180B	
7440-09-7	Potassium	8830	ug/L		P	170	500	1	THERMO3	14180B	
7782-49-2	Selenium	0.23	ug/L	U	WJ	MS	0.23	2.0	1 PE ICPMS DRC-E	14182B	
7440-23-5	Sodium	22700	ug/L		P	65.0	500	1	THERMO3	14180B	
7440-62-2	Vanadium	1.7	ug/L	U	P	1.7	5.0	1	THERMO3	14180B	
7440-66-6	Zinc	3.2	ug/L	U	P	3.2	10.0	1	THERMO3	14180B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

CONFIRMED w/Raw.*TB 8-31-14*

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-03

Client ID: 14107

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	557000	ug/L			P	443	923	1	THERMO3	14180B
7440-43-9	Cadmium	5.2	ug/L	J+		P	0.68	2.0	1	THERMO3	14180B
7440-70-2	Calcium	125000	ug/L			P	29.0	40.0	1	THERMO3	14180B
7439-95-4	Magnesium	59400	ug/L			P	90.0	200	1	THERMO3	14180B
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14180B
7439-98-7	Molybdenum	32.2	ug/L			P	2.7	8.0	1	THERMO3	14180B
7440-09-7	Potassium	6730	ug/L			P	170	500	1	THERMO3	14180B
7782-49-2	Selenium	12.7	ug/L	J		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	304000	ug/L			P	65.0	500	1	THERMO3	14180B
7440-62-2	Vanadium	50.1	ug/L			P	1.7	5.0	1	THERMO3	14180B
7440-66-6	Zinc	16.2	ug/L			P	3.2	10.0	1	THERMO3	14180B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
 Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

✓ Confirmed w/ Raw
 CCB contain. Qualifies Cd values <10x CCB (0.75).

8-31-14

[Signature]

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-04

Client ID: 14108

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	560000	ug/L			P	443	923	1	THERMO3	14180B
7440-43-9	Cadmium	5.5	ug/L	J+		P	0.68	2.0	1	THERMO3	14180B
7440-70-2	Calcium	126000	ug/L			P	29.0	40.0	1	THERMO3	14180B
7439-95-4	Magnesium	59800	ug/L			P	90.0	200	1	THERMO3	14180B
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14180B
7439-98-7	Molybdenum	32.4	ug/L			P	2.7	8.0	1	THERMO3	14180B
7440-09-7	Potassium	6780	ug/L			P	170	500	1	THERMO3	14180B
7782-49-2	Selenium	13.2	ug/L	J		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	308000	ug/L			P	65.0	500	1	THERMO3	14180B
7440-62-2	Vanadium	49.9	ug/L			P	1.7	5.0	1	THERMO3	14180B
7440-66-6	Zinc	15.7	ug/L			P	3.2	10.0	1	THERMO3	14180B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

*Confirmed w/ Raw.
CCB contains Qualifiers Cd result <10x CCB result (0.75).*

7/28 8-31-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-05	Client ID: 14109
-----------------------	------------------

Contract: _____	Lab Code: SVL	Case No.: _____	SAS No.: _____
-----------------	---------------	-----------------	----------------

Matrix: WATER	Date Received: 6/17/2014	Level: LOW
---------------	--------------------------	------------

% Solids: _____	Total/Dissolved: _____	Total Recoverable: _____
-----------------	------------------------	--------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	559000	ug/L			P	443	923	1	THERMO3	14180B
7440-43-9	Cadmium	5.8	ug/L		J+	P	0.68	2.0	1	THERMO3	14180B
7440-70-2	Calcium	126000	ug/L			P	29.0	40.0	1	THERMO3	14180B
7439-95-4	Magnesium	59500	ug/L			P	90.0	200	1	THERMO3	14180B
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14180B
7439-98-7	Molybdenum	32.6	ug/L			P	2.7	8.0	1	THERMO3	14180B
7440-09-7	Potassium	6750	ug/L		J	P	170	500	1	THERMO3	14180B
7782-49-2	Selenium	12.6	ug/L			MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	306000	ug/L			P	65.0	500	1	THERMO3	14180B
7440-62-2	Vanadium	50.5	ug/L			P	1.7	5.0	1	THERMO3	14180B
7440-66-6	Zinc	16.2	ug/L			P	3.2	10.0	1	THERMO3	14180B

Color Before: COLORLESS	Clarity Before: CLEAR	Texture: _____
Color After: COLORLESS	Clarity After: CLEAR	Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

✓ Confirmed w/ Raw.
CCB contamination Qualifies Cd results <10 x CCB value (0.75).

TM 8-31-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-06

Client ID: 14110

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	483000	ug/L			P	443	923	1	THERMO3	14180B
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14180B
7440-70-2	Calcium	70400	ug/L			P	29.0	40.0	1	THERMO3	14180B
7439-95-4	Magnesium	74500	ug/L			P	90.0	200	1	THERMO3	14180B
7439-96-5	Manganese	111	ug/L			P	1.3	4.0	1	THERMO3	14180B
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14180B
7440-09-7	Potassium	8650	ug/L			P	170	500	1	THERMO3	14180B
7782-49-2	Selenium	0.23	ug/L	U	NJ	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	24600	ug/L			P	65.0	500	1	THERMO3	14180B
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14180B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14180B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
 Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

Confirmed w/ Raw

8-31-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0345 Method Type: _____

Sample ID: W4F0345-07

Client ID: 14111

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	548000	ug/L			P	443	923	1	THERMO3	14180B
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14180B
7440-70-2	Calcium	80000	ug/L			P	29.0	40.0	1	THERMO3	14180B
7439-95-4	Magnesium	84700	ug/L			P	90.0	200	1	THERMO3	14180B
7439-96-5	Manganese	168	ug/L			P	1.3	4.0	1	THERMO3	14180B
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14180B
7440-09-7	Potassium	9650	ug/L			P	170	500	1	THERMO3	14180B
7782-49-2	Selenium	0.23	ug/L	U	WT	MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	25500	ug/L			P	65.0	500	1	THERMO3	14180B
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14180B
7440-66-6	Zinc	3.9	ug/L	J		P	3.2	10.0	1	THERMO3	14180B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

✓ Confirmed w/ Raw

TJ 8-31-14



77

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0345

Reported: 08-Jul-14 18:17

Client Sample ID: 14105

SVL Sample ID: W4F0345-01 (Surface Water)

Sample Report Page 1 of 1

Sampled: 13-Jun-14 10:00

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:34	
EPA 353.2	Nitrate/Nitrite as N	3.93	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:51	
SM 2320B	Total Alkalinity	444	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:25	
SM 2320B	Bicarbonate	444	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:25	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:25	
SM 2540 C	Total Diss. Solids	767	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.438	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	
Anions by Ion Chromatography										
EPA 300.0	Chloride	92.6	mg/L	5.00	1.18	25	W426123	AEW	06/25/14 13:22	D2,M3
EPA 300.0	Fluoride	0.60	mg/L	0.10	0.03		W426123	AEW	06/25/14 13:11	
EPA 300.0	Sulfate as SO ₄	125	mg/L	7.50	1.38	25	W426123	AEW	06/25/14 13:22	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

78

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0345

Reported: 08-Jul-14 18:17

Client Sample ID: **14106**SVL Sample ID: **W4F0345-02 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 13-Jun-14 10:30

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 15:23
EPA 353.2	Nitrate/Nitrite as N	0.160	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:53
SM 2320B	Total Alkalinity	482	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:29
SM 2320B	Bicarbonate	482	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:29
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:29
SM 2540 C	Total Diss. Solids	512	mg/L	10			W425190	JDM	06/18/14 20:05
SM 4500-P-E	Phosphorus	0.084	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26

Anions by Ion Chromatography

EPA 300.0	Chloride	10.9	mg/L	0.20	0.05		W426123	AEW	06/25/14 14:57
EPA 300.0	Fluoride	0.35	mg/L	0.10	0.03		W426123	AEW	06/25/14 14:57
EPA 300.0	Sulfate as SO ₄	43.3	mg/L	0.30	0.06		W426123	AEW	06/25/14 14:57

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



79

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0345

Reported: 08-Jul-14 18:17

Client Sample ID: **14107**SVL Sample ID: **W4F0345-03 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 13-Jun-14 12:00

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.032	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:42	
EPA 353.2	Nitrate/Nitrite as N	3.71	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:54	
SM 2320B	Total Alkalinity	454	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:34	
SM 2320B	Bicarbonate	434	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:34	
SM 2320B	Carbonate	20.1	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:34	
SM 2540 C	Total Diss. Solids	1350	mg/L	40			W425190	JDM	06/18/14 20:05	D1
SM 4500-P-E	Phosphorus	0.548	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	
Anions by Ion Chromatography										
EPA 300.0	Chloride	487	mg/L	10.0	2.35	50	W426123	AEG	06/25/14 15:28	D2
EPA 300.0	Fluoride	< 0.50	mg/L	0.50	0.14	5	W426123	AEG	06/25/14 15:18	D1
EPA 300.0	Sulfate as SO ₄	134	mg/L	1.50	0.28	5	W426123	AEG	06/25/14 15:18	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



80

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0345

Reported: 08-Jul-14 18:17

Client Sample ID: **14108**SVL Sample ID: **W4F0345-04 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 13-Jun-14 12:15
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 15:06	
EPA 353.2	Nitrate/Nitrite as N	3.66	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:55	
SM 2320B	Total Alkalinity	454	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:39	
SM 2320B	Bicarbonate	435	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:39	
SM 2320B	Carbonate	18.9	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:39	
SM 2540 C	Total Diss. Solids	1350	mg/L	40			W425190	JDM	06/18/14 20:05	D1
SM 4500-P-E	Phosphorus	0.559	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	
Anions by Ion Chromatography										
EPA 300.0	Chloride	494	mg/L	10.0	2.35	50	W426123	AEW	06/25/14 15:49	D2
EPA 300.0	Fluoride	< 0.50	mg/L	0.50	0.14	5	W426123	AEW	06/25/14 15:39	D1
EPA 300.0	Sulfate as SO ₄	134	mg/L	1.50	0.28	5	W426123	AEW	06/25/14 15:39	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



81

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0345

Reported: 08-Jul-14 18:17

Client Sample ID: **14109**SVL Sample ID: **W4F0345-05 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 13-Jun-14 12:30

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:45	
EPA 353.2	Nitrate/Nitrite as N	3.70	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:57	
SM 2320B	Total Alkalinity	454	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:43	
SM 2320B	Bicarbonate	431	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:43	
SM 2320B	Carbonate	22.1	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:43	
SM 2540 C	Total Diss. Solids	1320	mg/L	40			W425190	JDM	06/18/14 20:05	D1
SM 4500-P-E	Phosphorus	0.563	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	

Anions by Ion Chromatography

EPA 300.0	Chloride	491	mg/L	10.0	2.35	50	W426123	AEW	06/25/14 16:11	D2
EPA 300.0	Fluoride	< 0.50	mg/L	0.50	0.14	5	W426123	AEW	06/25/14 16:01	D1
EPA 300.0	Sulfate as SO ₄	135	mg/L	1.50	0.28	5	W426123	AEW	06/25/14 16:01	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



82

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0345
Reported: 08-Jul-14 18:17

Client Sample ID: **14110**SVL Sample ID: **W4F0345-06 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 13-Jun-14 12:45
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 15:07	
EPA 353.2	Nitrate/Nitrite as N	0.409	mg/L	0.050	0.022		W426086	ARP	07/02/14 17:58	
SM 2320B	Total Alkalinity	483	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:52	
SM 2320B	Bicarbonate	483	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:52	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:52	
SM 2540 C	Total Diss. Solids	524	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.069	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	
Anions by Ion Chromatography										
EPA 300.0	Chloride	14.2	mg/L	5.00	1.18	25	W426123	AEW	06/25/14 16:33	D2
EPA 300.0	Fluoride	0.33	mg/L	0.10	0.03		W426123	AEW	06/25/14 16:22	
EPA 300.0	Sulfate as SO ₄	43.9	mg/L	0.30	0.06		W426123	AEW	06/25/14 16:22	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



83

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0345
Reported: 08-Jul-14 18:17

Client Sample ID: **14111**
SVL Sample ID: **W4F0345-07 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 13-Jun-14 12:50
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.053	mg/L	0.030	0.022		W426077	ARP	07/01/14 15:09
EPA 353.2	Nitrate/Nitrite as N	0.074	mg/L	0.050	0.022		W426086	ARP	07/02/14 18:05
SM 2320B	Total Alkalinity	543	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:56
SM 2320B	Bicarbonate	543	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:56
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 13:56
SM 2540 C	Total Diss. Solids	598	mg/L	10			W425190	JDM	06/18/14 20:05
SM 4500-P-E	Phosphorus	0.152	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26

Anions by Ion Chromatography

EPA 300.0	Chloride	13.5	mg/L	5.00	1.18	25	W426123	AEW	06/25/14 17:15	D2
EPA 300.0	Fluoride	0.47	mg/L	0.10	0.03		W426123	AEW	06/25/14 17:04	
EPA 300.0	Sulfate as SO ₄	47.6	mg/L	0.30	0.06		W426123	AEW	06/25/14 17:04	

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0346 Method Type: _____

Sample ID: W4F0346-02

Client ID: 14095

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14180A
7440-70-2	Calcium	129000	ug/L			P	29.3	40.4	1	THERMO3	14180A
7439-95-4	Magnesium	132000	ug/L			P	90.9	202	1	THERMO3	14180A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14180A
7439-98-7	Molybdenum	25.1	ug/L			P	2.7	8.1	1	THERMO3	14180A
7440-09-7	Potassium	15100	ug/L			P	172	505	1	THERMO3	14180A
7782-49-2	Selenium	166	ug/L			MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	115000	ug/L			P	65.7	505	1	THERMO3	14180A
7440-62-2	Vanadium	4.9	ug/L	J		P	1.7	5.0	1	THERMO3	14180A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14180A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: Tay 8-22-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0346 Method Type: _____

<u>Sample ID:</u> W4F0346-04	<u>Client ID:</u> 14096
------------------------------	-------------------------

<u>Contract:</u> _____	<u>Lab Code:</u> SVL	<u>Case No.:</u> _____	<u>SAS No.:</u> _____
------------------------	----------------------	------------------------	-----------------------

<u>Matrix:</u> WATER	<u>Date Received:</u> 6/17/2014	<u>Level:</u> LOW
----------------------	---------------------------------	-------------------

<u>% Solids:</u> _____	<u>Total/Dissolved:</u> <u>Dissolved</u>
------------------------	------------------------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14180A
7440-70-2	Calcium	160000	ug/L			P	29.3	40.4	1	THERMO3	14180A
7439-95-4	Magnesium	128000	ug/L			P	90.9	202	1	THERMO3	14180A
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14180A
7439-98-7	Molybdenum	24.9	ug/L			P	2.7	8.1	1	THERMO3	14180A
7440-09-7	Potassium	21000	ug/L			P	172	505	1	THERMO3	14180A
7782-49-2	Selenium	231	ug/L			MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	78500	ug/L			P	65.7	505	1	THERMO3	14180A
7440-62-2	Vanadium	5.4	ug/L			P	1.7	5.0	1	THERMO3	14180A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14180A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: 8-22-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0346 Method Type: _____

Sample ID: W4F0346-03

Client ID: 14097

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14180A
7440-70-2	Calcium	126000	ug/L			P	29.3	40.4	1	THERMO3	14180A
7439-95-4	Magnesium	129000	ug/L			P	90.9	202	1	THERMO3	14180A
7439-96-5	Manganese	13.1	ug/L			P	1.3	4.0	1	THERMO3	14180A
7439-98-7	Molybdenum	28.6	ug/L			P	2.7	8.1	1	THERMO3	14180A
7440-09-7	Potassium	17100	ug/L			P	172	505	1	THERMO3	14180A
7782-49-2	Selenium	151	ug/L			MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	160000	ug/L			P	65.7	505	1	THERMO3	14180A
7440-62-2	Vanadium	6.2	ug/L			P	1.7	5.0	1	THERMO3	14180A
7440-66-6	Zinc	28.9	ug/L			P	3.2	10.1	1	THERMO3	14180A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

TPJ 8-22-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0346 Method Type: _____

Sample ID: W4F0346-05

Client ID: 14098

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	1.2	ug/L	J		P	0.69	2.0	1	THERMO3	14180A
7440-70-2	Calcium	123000	ug/L			P	29.3	40.4	1	THERMO3	14180A
7439-95-4	Magnesium	140000	ug/L			P	90.9	202	1	THERMO3	14180A
7439-96-5	Manganese	45.6	ug/L			P	1.3	4.0	1	THERMO3	14180A
7439-98-7	Molybdenum	14.8	ug/L			P	2.7	8.1	1	THERMO3	14180A
7440-09-7	Potassium	12600	ug/L			P	172	505	1	THERMO3	14180A
7782-49-2	Selenium	20.8	ug/L			MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	41900	ug/L			P	65.7	505	1	THERMO3	14180A
7440-62-2	Vanadium	3.5	ug/L	J		P	1.7	5.0	1	THERMO3	14180A
7440-66-6	Zinc	52.7	ug/L			P	3.2	10.1	1	THERMO3	14180A

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

TMJ 8-22-14

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0346

Method Type: _____

Sample ID: W4F0346-01

Client ID: 14101

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14180A
7440-70-2	Calcium	122000	ug/L			P	29.3	40.4	1	THERMO3	14180A
7439-95-4	Magnesium	133000	ug/L			P	90.9	202	1	THERMO3	14180A
7439-96-5	Manganese	490	ug/L			P	1.3	4.0	1	THERMO3	14180A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.1	1	THERMO3	14180A
7440-09-7	Potassium	13900	ug/L			P	172	505	1	THERMO3	14180A
7782-49-2	Selenium	0.23	ug/L	U		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	34000	ug/L			P	65.7	505	1	THERMO3	14180A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14180A
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14180A

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

Thej 8-22-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0346 Method Type: _____

Sample ID: W4F0346-02	Client ID: 14095
-----------------------	------------------

Contract: _____	Lab Code: SVL	Case No.: _____	SAS No.: _____
-----------------	---------------	-----------------	----------------

Matrix: WATER	Date Received: 6/17/2014	Level: LOW
---------------	--------------------------	------------

% Solids: _____	Total/Dissolved: _____	Total Recoverable: _____
-----------------	------------------------	--------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	830000	ug/L			P	443	923	1	THERMO3	14180B
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14180B
7440-70-2	Calcium	125000	ug/L			P	29.0	40.0	1	THERMO3	14180B
7439-95-4	Magnesium	126000	ug/L			P	90.0	200	1	THERMO3	14180B
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14180B
7439-98-7	Molybdenum	24.2	ug/L			P	2.7	8.0	1	THERMO3	14180B
7440-09-7	Potassium	14700	ug/L			P	170	500	1	THERMO3	14180B
7782-49-2	Selenium	162	ug/L			MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	110000	ug/L			P	65.0	500	1	THERMO3	14180B
7440-62-2	Vanadium	4.4	ug/L	J		P	1.7	5.0	1	THERMO3	14180B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14180B

Color Before: COLORLESS	Clarity Before: CLEAR	Texture: _____
Color After: COLORLESS	Clarity After: CLEAR	Artifacts: _____

Comments: Test 8-22-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0346 Method Type: _____

Sample ID: W4F0346-04

Client ID: 14096

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	906000	ug/L		P	443	923	1	THERMO3	14180B	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	THERMO3	14180B	
7440-70-2	Calcium	158000	ug/L		P	29.0	40.0	1	THERMO3	14180B	
7439-95-4	Magnesium	125000	ug/L		P	90.0	200	1	THERMO3	14180B	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14180B	
7439-98-7	Molybdenum	24.6	ug/L		P	2.7	8.0	1	THERMO3	14180B	
7440-09-7	Potassium	20500	ug/L		P	170	500	1	THERMO3	14180B	
7782-49-2	Selenium	222	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B	
7440-23-5	Sodium	76300	ug/L		P	65.0	500	1	THERMO3	14180B	
7440-62-2	Vanadium	5.8	ug/L		P	1.7	5.0	1	THERMO3	14180B	
7440-66-6	Zinc	3.2	ug/L	U	P	3.2	10.0	1	THERMO3	14180B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
 Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: 8-22-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0346

Method Type:

Sample ID: W4F0346-03

Client ID: 14097

Contract:

Lab Code: SVL

Case No.:

SAS No.:

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	820000	ug/L			P	443	923	1	THERMO3	14180B
7440-43-9	Cadmium	1.7	ug/L	J		P	0.68	2.0	1	THERMO3	14180B
7440-70-2	Calcium	123000	ug/L			P	29.0	40.0	1	THERMO3	14180B
7439-95-4	Magnesium	124000	ug/L			P	90.0	200	1	THERMO3	14180B
7439-96-5	Manganese	15.5	ug/L			P	1.3	4.0	1	THERMO3	14180B
7439-98-7	Molybdenum	28.3	ug/L			P	2.7	8.0	1	THERMO3	14180B
7440-09-7	Potassium	16600	ug/L			P	170	500	1	THERMO3	14180B
7782-49-2	Selenium	193	ug/L	J		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	153000	ug/L			P	65.0	500	1	THERMO3	14180B
7440-62-2	Vanadium	6.3	ug/L			P	1.7	5.0	1	THERMO3	14180B
7440-66-6	Zinc	44.2	ug/L			P	3.2	10.0	1	THERMO3	14180B

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

out of limit.*Test 8-22-14; Internal Std.*

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0346 Method Type: _____

<u>Sample ID:</u> <u>W4F0346-05</u>	<u>Client ID:</u> <u>14098</u>
-------------------------------------	--------------------------------

<u>Contract:</u> _____	<u>Lab Code:</u> <u>SVL</u>	<u>Case No.:</u> _____	<u>SAS No.:</u> _____
------------------------	-----------------------------	------------------------	-----------------------

<u>Matrix:</u> <u>WATER</u>	<u>Date Received:</u> <u>6/17/2014</u>	<u>Level:</u> <u>LOW</u>
-----------------------------	----------------------------------------	--------------------------

<u>% Solids:</u> _____	<u>Total/Dissolved:</u> _____	<u>Total Recoverable:</u> _____
------------------------	-------------------------------	---------------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	878000	ug/L		P	443	923	1	THERMO3	14180B	
7440-43-9	Cadmium	3.7	ug/L		P	0.68	2.0	1	THERMO3	14180B	
7440-70-2	Calcium	125000	ug/L		P	29.0	40.0	1	THERMO3	14180B	
7439-95-4	Magnesium	137000	ug/L		P	90.0	200	1	THERMO3	14180B	
7439-96-5	Manganese	52.7	ug/L		P	1.3	4.0	1	THERMO3	14180B	
7439-98-7	Molybdenum	14.6	ug/L		P	2.7	8.0	1	THERMO3	14180B	
7440-09-7	Potassium	12900	ug/L		P	170	500	1	THERMO3	14180B	
7782-49-2	Selenium	21.4	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B	
7440-23-5	Sodium	41300	ug/L	J	P	65.0	500	1	THERMO3	14180B	
7440-62-2	Vanadium	3.8	ug/L		P	1.7	5.0	1	THERMO3	14180B	
7440-66-6	Zinc	65.1	ug/L		P	3.2	10.0	1	THERMO3	14180B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

Tag 8-22-14

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0346 Method Type: _____

Sample ID: W4F0346-01

Client ID: 14101

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	817000	ug/L			P	443	923	1	THERMO3	14180B
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14180B
7440-70-2	Calcium	118000	ug/L			P	29.0	40.0	1	THERMO3	14180B
7439-95-4	Magnesium	127000	ug/L			P	90.0	200	1	THERMO3	14180B
7439-96-5	Manganese	454	ug/L			P	1.3	4.0	1	THERMO3	14180B
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14180B
7440-09-7	Potassium	13600	ug/L			P	170	500	1	THERMO3	14180B
7782-49-2	Selenium	0.23	ug/L	U		MS	0.23	2.0	1	PE ICPMS DRC-E	14182B
7440-23-5	Sodium	32500	ug/L			P	65.0	500	1	THERMO3	14180B
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14180B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14180B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES _____

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

TR 8-22-14



59

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
 Work Order: W4F0346
 Reported: 08-Jul-14 18:18

Client Sample ID: **14101**SVL Sample ID: **W4F0346-01 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 12-Jun-14 13:15
 Received: 17-Jun-14
 Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.555	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:49	
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.022		W426086	ARP	07/02/14 18:28	
SM 2320B	Total Alkalinity	816	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:01	
SM 2320B	Bicarbonate	816	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:01	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:01	
SM 2540 C	Total Diss. Solids	863	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.463	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	

Anions by Ion Chromatography

EPA 300.0	Chloride	13.7	mg/L	5.00	1.18	25	W426171	AEW	06/26/14 18:57	D2,M3
EPA 300.0	Fluoride	0.74	mg/L	0.10	0.03		W426171	AEW	06/26/14 18:46	
EPA 300.0	Sulfate as SO ₄	59.1	mg/L	7.50	1.38	25	W426171	AEW	06/26/14 18:57	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
 Technical Director



60

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0346

Reported: 08-Jul-14 18:18

Client Sample ID: **14095**SVL Sample ID: **W4F0346-02 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 12-Jun-14 09:20

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.043	mg/L	0.030	0.022		W426077	ARP	07/01/14 15:10	
EPA 353.2	Nitrate/Nitrite as N	5.23	mg/L	0.100	0.044	2	W426086	ARP	07/02/14 18:08	D2
SM 2320B	Total Alkalinity	635	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:07	
SM 2320B	Bicarbonate	635	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:07	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:07	
SM 2540 C	Total Diss. Solids	1170	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.263	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	

Anions by Ion Chromatography

EPA 300.0	Chloride	134	mg/L	10.0	2.35	50	W426171	AEW	06/26/14 20:46	D2
EPA 300.0	Fluoride	2.06	mg/L	0.50	0.14	5	W426171	AEW	06/26/14 20:35	D1
EPA 300.0	Sulfate as SO ₄	247	mg/L	1.50	0.28	5	W426171	AEW	06/26/14 20:35	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

8-22



One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

61

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0346

Reported: 08-Jul-14 18:18

Client Sample ID: **14097**SVL Sample ID: **W4F0346-03 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 12-Jun-14 10:30

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:51	
EPA 353.2	Nitrate/Nitrite as N	2.55	mg/L	0.050	0.022		W426086	ARP	07/02/14 18:10	
SM 2320B	Total Alkalinity	610	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:13	
SM 2320B	Bicarbonate	610	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:13	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:13	
SM 2540 C	Total Diss. Solids	1300	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.230	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	

Anions by Ion Chromatography

EPA 300.0	Chloride	201	mg/L	10.0	2.35	50	W426171	AEW	06/26/14 21:08	D2
EPA 300.0	Fluoride	2.39	mg/L	0.50	0.14	5	W426171	AEW	06/26/14 20:57	D1
EPA 300.0	Sulfate as SO ₄	266	mg/L	15.0	2.75	50	W426171	AEW	06/26/14 21:08	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0346

Reported: 08-Jul-14 18:18

Client Sample ID: 14096

SVL Sample ID: W4F0346-04 (Surface Water)

Sample Report Page 1 of 1

Sampled: 12-Jun-14 09:40

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 15:11	
EPA 353.2	Nitrate/Nitrite as N	7.18	mg/L	0.100	0.044	2	W426086	ARP	07/02/14 18:11	D2
SM 2320B	Total Alkalinity	509	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:17	
SM 2320B	Bicarbonate	509	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:17	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:17	
SM 2540 C	Total Diss. Solids	1270	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.193	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	
Anions by Ion Chromatography										
EPA 300.0	Chloride	95.2	mg/L	10.0	2.35	50	W426171	AEW	06/26/14 21:30	D2
EPA 300.0	Fluoride	2.34	mg/L	0.50	0.14	5	W426171	AEW	06/26/14 21:19	D1
EPA 300.0	Sulfate as SO ₄	401	mg/L	15.0	2.75	50	W426171	AEW	06/26/14 21:30	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray

Kirby Gray
Technical Director

TJG 8-22



63

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0346

Reported: 08-Jul-14 18:18

Client Sample ID: **14098**

Sampled: 12-Jun-14 11:00

SVL Sample ID: **W4F0346-05 (Surface Water)**

Received: 17-Jun-14

Sample Report Page 1 of 1

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426077	ARP	07/01/14 14:54	
EPA 353.2	Nitrate/Nitrite as N	1.70	mg/L	0.050	0.022		W426086	ARP	07/02/14 18:12	
SM 2320B	Total Alkalinity	870	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:22	
SM 2320B	Bicarbonate	870	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:22	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425170	AGF	06/19/14 14:22	
SM 2540 C	Total Diss. Solids	911	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.197	mg/L	0.010	0.003		W427048	SM	06/30/14 17:26	

Anions by Ion Chromatography

EPA 300.0	Chloride	15.8	mg/L	5.00	1.18	25	W426171	AEW	06/26/14 21:52	D2
EPA 300.0	Fluoride	0.78	mg/L	0.10	0.03		W426171	AEW	06/26/14 21:41	
EPA 300.0	Sulfate as SO ₄	59.3	mg/L	7.50	1.38	25	W426171	AEW	06/26/14 21:52	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0347 Method Type: _____

Sample ID: W4F0347-08	Client ID: 14088
-----------------------	------------------

Contract: _____	Lab Code: SVL	Case No.: _____	SAS No.: _____
-----------------	---------------	-----------------	----------------

Matrix: WATER	Date Received: 6/17/2014	Level: LOW
---------------	--------------------------	------------

% Solids: _____	Total/Dissolved: Dissolved
-----------------	----------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7429-90-5	Aluminum	36.4	ug/L	U		P	36.4	80.8	1	THERMO3	14182B
7439-89-6	Iron	23.2	ug/L	U		P	23.2	60.6	1	THERMO3	14182B
7439-96-5	Manganese	737	ug/L			P	1.3	4.0	1	THERMO3	14182B
7631-86-9	Silica	52600	ug/L			P	74.7	173	1	Optima A	14189AA-W42521

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: 108 8-20-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0347

Method Type:

Sample ID: W4F0347-05

Client ID: 14074

Contract:

Lab Code: SVL

Case No.:

SAS No.:

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	835000	ug/L			P	443	923	1	THERMO3	14181B2
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14181B2
7440-70-2	Calcium	168000	ug/L			P	29.0	40.0	1	THERMO3	14181B2
7439-95-4	Magnesium	101000	ug/L			P	90.0	200	1	THERMO3	14181B2
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14181B2
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14181B2
7440-09-7	Potassium	7540	ug/L			P	170	500	1	THERMO3	14181B2
7782-49-2	Selenium	3.3	ug/L		X	MS	0.23	2.0	1	THERMO3	14181B2
7440-23-5	Sodium	31500	ug/L			P	65.0	500	1	PE ICPMS DRC-E	14195A
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14181B2
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14181B2

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments: TH 8-21-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0347 Method Type: _____

Sample ID: W4F0347-01

Client ID: 14076

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	458000	ug/L			P	443	923	1	THERMO3	14181B2
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14181B2
7440-70-2	Calcium	110000	ug/L			P	29.0	40.0	1	THERMO3	14181B2
7439-95-4	Magnesium	44400	ug/L			P	90.0	200	1	THERMO3	14181B2
7439-96-5	Manganese	11.9	ug/L			P	1.3	4.0	1	THERMO3	14181B2
7439-98-7	Molybdenum	323	ug/L			P	2.7	8.0	1	THERMO3	14181B2
7440-09-7	Potassium	6140	ug/L			P	170	500	1	THERMO3	14181B2
7782-49-2	Selenium	3.5	ug/L		JAN	MS	0.23	2.0	1	PE ICPMS DRC-E	14195A
7440-23-5	Sodium	44100	ug/L			P	65.0	500	1	THERMO3	14181B2
7440-62-2	Vanadium	252	ug/L			P	1.7	5.0	1	THERMO3	14181B2
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	THERMO3	14181B2

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: 7/18/14 : Se qualif. due to MS/MSD & RPD outliers.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0347

Method Type:

Sample ID: W4F0347-02

Client ID: 14082

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1270000	ug/L			P	443	923	1	THERMO3	14181B2
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14181B2
7440-70-2	Calcium	208000	ug/L			P	29.0	40.0	1	THERMO3	14181B2
7439-95-4	Magnesium	183000	ug/L			P	90.0	200	1	THERMO3	14181B2
7439-96-5	Manganese	1340	ug/L			P	1.3	4.0	1	THERMO3	14181B2
7439-98-7	Molybdenum	263	ug/L			P	2.7	8.0	1	THERMO3	14181B2
7440-09-7	Potassium	49000	ug/L			P	170	500	1	THERMO3	14181B2
7782-49-2	Selenium	2.1	ug/L	N		MS	0.23	2.0	1	PE ICPMS DRC-E	14195A
7440-23-5	Sodium	165000	ug/L			P	65.0	500	1	THERMO3	14181B2
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14181B2
7440-66-6	Zinc	9.2	ug/L	J		P	3.2	10.0	1	THERMO3	14181B2

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: 108 8-21-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0347 Method Type: _____

Sample ID: <u>W4F0347-06</u>	Client ID: <u>14083</u>
------------------------------	-------------------------

Contract: _____	Lab Code: <u>SVL</u>	Case No.: _____	SAS No.: _____
-----------------	----------------------	-----------------	----------------

Matrix: <u>WATER</u>	Date Received: <u>6/17/2014</u>	Level: <u>LOW</u>
----------------------	---------------------------------	-------------------

% Solids: _____	Total/Dissolved: _____	Total Recoverable: _____
-----------------	------------------------	--------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1020000	ug/L			P	443	923	1	THERMO3	14181B2
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14181B2
7440-70-2	Calcium	251000	ug/L			P	29.0	40.0	1	THERMO3	14181B2
7439-95-4	Magnesium	95800	ug/L			P	90.0	200	1	THERMO3	14181B2
7439-96-5	Manganese	541	ug/L			P	1.3	4.0	1	THERMO3	14181B2
7439-98-7	Molybdenum	46.0	ug/L			P	2.7	8.0	1	THERMO3	14181B2
7440-09-7	Potassium	55500	ug/L			P	170	500	1	THERMO3	14181B2
7782-49-2	Selenium	441	ug/L		N	MS	0.23	2.0	1	PE ICPMS DRC-E	14195A
7440-23-5	Sodium	105000	ug/L			P	65.0	500	1	THERMO3	14181B2
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14181B2
7440-66-6	Zinc	4.1	ug/L	J		P	3.2	10.0	1	THERMO3	14181B2

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: MoS 8-21-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0347 Method Type: _____

Sample ID: W4F0347-09

Client ID: 14084

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	973000	ug/L		P	443	923	1	THERMO3	14181B2	
7440-43-9	Cadmium	49.9	ug/L		P	0.68	2.0	1	THERMO3	14181B2	
7440-70-2	Calcium	154000	ug/L		P	29.0	40.0	1	THERMO3	14181B2	
7439-95-4	Magnesium	143000	ug/L		P	90.0	200	1	THERMO3	14181B2	
7439-96-5	Manganese	2570	ug/L		P	1.3	4.0	1	THERMO3	14181B2	
7439-98-7	Molybdenum	216	ug/L		P	2.7	8.0	1	THERMO3	14181B2	
7440-09-7	Potassium	47300	ug/L		P	170	500	1	THERMO3	14181B2	
7782-49-2	Selenium	206	ug/L	A	MS	0.23	2.0	1	PE ICPMS DRC-E	14195A	
7440-23-5	Sodium	125000	ug/L		P	65.0	500	1	THERMO3	14181C	
7440-62-2	Vanadium	10.1	ug/L		P	1.7	5.0	1	THERMO3	14181B2	
7440-66-6	Zinc	281	ug/L		P	3.2	10.0	1	THERMO3	14181B2	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: Aug 21-14

- 1 -

Client: GOLDER ASSOCIATES SDG No.: W4F0347 Method Type:

SDG No.: W4F0347

Method Type:

Sample ID: W4F0347-03

Client ID: 14086

Contract:

Lab Code: SVL

Case No.:

SAS No.:

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E 11778	Hardness	913000	ug/L		P	443	923	1	THERMO3	14181B2	
7440-43-9	Cadmium	238	ug/L		P	0.68	2.0	1	THERMO3	14181B2	
7440-70-2	Calcium	164000	ug/L		P	29.0	40.0	1	THERMO3	14181B2	
7439-95-4	Magnesium	122000	ug/L		P	90.0	200	1	THERMO3	14181B2	
7439-96-5	Manganese	284	ug/L		P	1.3	4.0	1	THERMO3	14181B2	
7439-98-7	Molybdenum	449	ug/L		P	2.7	8.0	1	THERMO3	14181B2	
7440-09-7	Potassium	56300	ug/L		P	170	500	1	THERMO3	14181B2	
7782-49-2	Selenium	357	ug/L	N	MS	0.23	2.0	1	PE ICPMS DRC-E	14195A	
7440-23-5	Sodium	87700	ug/L		P	65.0	500	1	THERMO3	14181B2	
7440-62-2	Vanadium	35.2	ug/L		P	1.7	5.0	1	THERMO3	14181B2	
7440-66-6	Zinc	1260	ug/L		P	3.2	10.0	1	THERMO3	14181B2	

Color Before: COLORLESS **Clarity Before:** CLEAR **Texture:**

Color After: COLORLESS **Clarity After:** CLEAR **Artifacts:**

Comments: Tony 8-21-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0347 Method Type: _____

Sample ID: W4F0347-08

Client ID: 14088

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	933000	ug/L		P	443	923	1	THERMO3	14181B2	
7440-43-9	Cadmium	140	ug/L		P	0.68	2.0	1	THERMO3	14181B2	
7440-70-2	Calcium	176000	ug/L		P	29.0	40.0	1	THERMO3	14181B2	
7439-95-4	Magnesium	120000	ug/L		P	90.0	200	1	THERMO3	14181B2	
7439-96-5	Manganese	752	ug/L		P	1.3	4.0	1	THERMO3	14181B2	
7439-98-7	Molybdenum	354	ug/L		P	2.7	8.0	1	THERMO3	14181B2	
7440-09-7	Potassium	39000	ug/L		P	170	500	1	THERMO3	14181B2	
7782-49-2	Selenium	367	ug/L	N	MS	0.23	2.0	1	PE ICPMS DRC-E	14195A	
7440-23-5	Sodium	76900	ug/L		P	65.0	500	1	THERMO3	14181C	
7440-62-2	Vanadium	12.5	ug/L		P	1.7	5.0	1	THERMO3	14181B2	
7440-66-6	Zinc	999	ug/L		P	3.2	10.0	1	THERMO3	14181B2	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: 10/8-21-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0347 Method Type: _____

Sample ID: W4F0347-04

Client ID: 14089

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	550000	ug/L		P	443	923	1	THERMO3	14181B2	
7440-43-9	Cadmium	2.5	ug/L		P	0.68	2.0	1	THERMO3	14181B2	
7440-70-2	Calcium	126000	ug/L		P	29.0	40.0	1	THERMO3	14181B2	
7439-95-4	Magnesium	57300	ug/L		P	90.0	200	1	THERMO3	14181B2	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14181B2	
7439-98-7	Molybdenum	35.3	ug/L		P	2.7	8.0	1	THERMO3	14181B2	
7440-09-7	Potassium	6030	ug/L		P	170	500	1	THERMO3	14181B2	
7782-49-2	Selenium	9.7	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14195A	
7440-23-5	Sodium	43000	ug/L		P	65.0	500	1	THERMO3	14181B2	
7440-62-2	Vanadium	63.4	ug/L		P	1.7	5.0	1	THERMO3	14181B2	
7440-66-6	Zinc	12.7	ug/L		P	3.2	10.0	1	THERMO3	14181B2	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: Thg-8-21-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0347 Method Type: _____

Sample ID: W4F0347-07

Client ID: 14091

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	718000	ug/L		P	443	923	1	THERMO3	14181B2	
7440-43-9	Cadmium	41.0	ug/L		P	0.68	2.0	1	THERMO3	14181B2	
7440-70-2	Calcium	152000	ug/L		P	29.0	40.0	1	THERMO3	14181B2	
7439-95-4	Magnesium	82200	ug/L		P	90.0	200	1	THERMO3	14181B2	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14181B2	
7439-98-7	Molybdenum	37.3	ug/L		P	2.7	8.0	1	THERMO3	14181B2	
7440-09-7	Potassium	12800	ug/L		P	170	500	1	THERMO3	14181B2	
7782-49-2	Selenium	36.9	ug/L	N	MS	0.23	2.0	1	PE ICPMS DRC-E	14195A	
7440-23-5	Sodium	91900	ug/L		P	65.0	500	1	THERMO3	14181B2	
7440-62-2	Vanadium	8.7	ug/L		P	1.7	5.0	1	THERMO3	14181B2	
7440-66-6	Zinc	62.0	ug/L		P	3.2	10.0	1	THERMO3	14181B2	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
 Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: Top 8-21-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0347 Method Type: _____

Sample ID: W4F0347-10	Client ID: 14125
-----------------------	------------------

Contract: _____	Lab Code: SVL	Case No.: _____	SAS No.: _____
-----------------	---------------	-----------------	----------------

Matrix: WATER	Date Received: 6/17/2014	Level: LOW
---------------	--------------------------	------------

% Solids: _____	Total/Dissolved: _____	Total Recoverable: _____
-----------------	------------------------	--------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	435000	ug/L			P	443	923	1	THERMO3	14181B2
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	THERMO3	14181B2
7440-70-2	Calcium	102000	ug/L			P	29.0	40.0	1	THERMO3	14181B2
7439-95-4	Magnesium	44100	ug/L			P	90.0	200	1	THERMO3	14181B2
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14181B2
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	THERMO3	14181B2
7440-09-7	Potassium	3060	ug/L			P	170	500	1	THERMO3	14181B2
7782-49-2	Selenium	1.5	ug/L	J	N	MS	0.23	2.0	1	PE ICPMS DRC-E	14195A
7440-23-5	Sodium	10800	ug/L			P	65.0	500	1	THERMO3	14181C
7440-62-2	Vanadium	2.5	ug/L	J		P	1.7	5.0	1	THERMO3	14181B2
7440-66-6	Zinc	36.2	ug/L			P	3.2	10.0	1	THERMO3	14181B2

Color Before: COLORLESS	Clarity Before: CLEAR	Texture: _____
-------------------------	-----------------------	----------------

Color After: COLORLESS	Clarity After: CLEAR	Artifacts: _____
------------------------	----------------------	------------------

Comments: TM 8-21-14



64

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0347
Reported: 14-Jul-14 15:06

Client Sample ID: **14076**SVL Sample ID: **W4F0347-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 10-Jun-14 10:30
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	2.80	mg/L	0.060	0.044	2	W426076	ARP	07/01/14 14:06	D2
EPA 353.2	Nitrate/Nitrite as N	4.05	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:29	
SM 2320B	Total Alkalinity	391	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 08:44	
SM 2320B	Bicarbonate	391	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 08:44	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 08:44	
SM 2540 C	Total Diss. Solids	554	mg/L	10			W425133	AGF	06/17/14 16:50	
SM 4500-P-E	Phosphorus	0.368	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32	

Anions by Ion Chromatography

EPA 300.0	Chloride	26.8	mg/L	5.00	1.18	25	W426139	AEW	06/25/14 18:03	D2,M3
EPA 300.0	Fluoride	0.43	mg/L	0.10	0.03		W426139	AEW	06/25/14 17:52	
EPA 300.0	Sulfate as SO ₄	89.6	mg/L	7.50	1.38	25	W426139	AEW	06/25/14 18:03	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray

Kirby Gray
Technical Director

JSI 7/19/14



One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

65

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0347
Reported: 14-Jul-14 15:06

Client Sample ID: **14082**SVL Sample ID: **W4F0347-02 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 10-Jun-14 17:40
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	3.16	mg/L	0.060	0.044	2	W426076	ARP	07/01/14 13:31	D2
EPA 353.2	Nitrate/Nitrite as N	0.066	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:48	
SM 2320B	Total Alkalinity	440	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 08:52	
SM 2320B	Bicarbonate	440	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 08:52	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 08:52	
SM 2540 C	Total Diss. Solids	1930	mg/L	40			W425133	AGF	06/17/14 16:50	D1
SM 4500-P-E	Phosphorus	0.337	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32	

Anions by Ion Chromatography

EPA 300.0	Chloride	233	mg/L	10.0	2.35	50	W426139	AEB	06/25/14 19:52	D2
EPA 300.0	Fluoride	1.34	mg/L	0.50	0.14	5	W426139	AEB	06/25/14 19:42	D1
EPA 300.0	Sulfate as SO ₄	840	mg/L	15.0	2.75	50	W426139	AEB	06/25/14 19:52	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



66

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0347
Reported: 14-Jul-14 15:06

Client Sample ID: **14086**SVL Sample ID: **W4F0347-03 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 11-Jun-14 12:10
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.403	mg/L	0.030	0.022		W426076	ARP	07/01/14 13:50	
EPA 353.2	Nitrate/Nitrite as N	4.17	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:32	
SM 2320B	Total Alkalinity	550	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:04	
SM 2320B	Bicarbonate	550	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:04	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:04	
SM 2540 C	Total Diss. Solids	1250	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.535	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32	
Anions by Ion Chromatography										
EPA 300.0	Chloride	142	mg/L	10.0	2.35	50	W426139	AEW	06/25/14 20:14	D2
EPA 300.0	Fluoride	7.41	mg/L	0.50	0.14	5	W426139	AEW	06/25/14 20:03	D2
EPA 300.0	Sulfate as SO ₄	318	mg/L	15.0	2.75	50	W426139	AEW	06/25/14 20:14	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



67

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
 Work Order: W4F0347
 Reported: 14-Jul-14 15:06

Client Sample ID: **14089**SVL Sample ID: **W4F0347-04 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 11-Jun-14 15:00
 Received: 17-Jun-14
 Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426076	ARP	07/01/14 13:18	
EPA 353.2	Nitrate/Nitrite as N	3.43	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:34	
SM 2320B	Total Alkalinity	438	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:21	
SM 2320B	Bicarbonate	438	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:21	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:21	
SM 2540 C	Total Diss. Solids	676	mg/L	10			W425190	JDM	06/18/14 20:05	
SM 4500-P-E	Phosphorus	0.314	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32	
Anions by Ion Chromatography										
EPA 300.0	Chloride	38.8	mg/L	5.00	1.18	25	W426139	AEW	06/25/14 20:36	D2
EPA 300.0	Fluoride	0.42	mg/L	0.10	0.03		W426139	AEW	06/25/14 20:25	
EPA 300.0	Sulfate as SO ₄	111	mg/L	7.50	1.38	25	W426139	AEW	06/25/14 20:36	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



68

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0347
Reported: 14-Jul-14 15:06

Client Sample ID: **14074**SVL Sample ID: **W4F0347-05 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 10-Jun-14 09:15
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426076	ARP	07/01/14 13:19
EPA 353.2	Nitrate/Nitrite as N	1.97	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:35
SM 2320B	Total Alkalinity	751	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:32
SM 2320B	Bicarbonate	751	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:32
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:32
SM 2540 C	Total Diss. Solids	848	mg/L	10			W425133	AGF	06/17/14 16:50
SM 4500-P-E	Phosphorus	0.182	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32

Anions by Ion Chromatography

EPA 300.0	Chloride	17.1	mg/L	5.00	1.18	25	W426139	AEW	06/25/14 20:58	D2
EPA 300.0	Fluoride	0.58	mg/L	0.10	0.03		W426139	AEW	06/25/14 20:47	
EPA 300.0	Sulfate as SO ₄	78.6	mg/L	7.50	1.38	25	W426139	AEW	06/25/14 20:58	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



69

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
 Work Order: W4F0347
 Reported: 14-Jul-14 15:06

Client Sample ID: **14083**SVL Sample ID: **W4F0347-06 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 11-Jun-14 08:30
 Received: 17-Jun-14
 Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.503	mg/L	0.030	0.022		W426076	ARP	07/01/14 13:21	
EPA 353.2	Nitrate/Nitrite as N	2.62	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:37	
SM 2320B	Total Alkalinity	80.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:48	
SM 2320B	Bicarbonate	80.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:48	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:48	
SM 2540 C	Total Diss. Solids	1220	mg/L	40			W425191	JDM	06/18/14 15:55	
SM 4500-P-E	Phosphorus	0.376	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32	D1
Anions by Ion Chromatography										
EPA 300.0	Chloride	356	mg/L	10.0	2.35	50	W426139	AEG	06/25/14 21:20	D2
EPA 300.0	Fluoride	7.84	mg/L	0.50	0.14	5	W426139	AEG	06/25/14 21:09	D2
EPA 300.0	Sulfate as SO ₄	605	mg/L	15.0	2.75	50	W426139	AEG	06/25/14 21:20	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



70

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0347

Reported: 14-Jul-14 15:06

Client Sample ID: **14091**SVL Sample ID: **W4F0347-07 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 11-Jun-14 16:00

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426076	ARP	07/01/14 13:37	
EPA 353.2	Nitrate/Nitrite as N	4.38	mg/L	0.100	0.044	2	W426085	ARP	07/02/14 18:38	D2
SM 2320B	Total Alkalinity	477	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:58	
SM 2320B	Bicarbonate	477	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:58	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 09:58	
SM 2540 C	Total Diss. Solids	989	mg/L	10			W425191	JDM	06/18/14 15:55	
SM 4500-P-E	Phosphorus	1.04	mg/L	0.020	0.007	2	W427064	SM	07/01/14 13:32	D2
Anions by Ion Chromatography										
EPA 300.0	Chloride	81.0	mg/L	5.00	1.18	25	W426139	AEW	06/25/14 22:04	D2
EPA 300.0	Fluoride	1.02	mg/L	0.10	0.03		W426139	AEW	06/25/14 21:53	
EPA 300.0	Sulfate as SO ₄	264	mg/L	7.50	1.38	25	W426139	AEW	06/25/14 22:04	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



71

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0347
Reported: 14-Jul-14 15:06

Client Sample ID: **14088**SVL Sample ID: **W4F0347-08 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 11-Jun-14 14:30
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.819	mg/L	0.030	0.022		W426076	ARP	07/01/14 14:07	
EPA 353.2	Nitrate/Nitrite as N	3.42	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:49	
SM 2320B	Total Alkalinity	589	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:12	
SM 2320B	Bicarbonate	589	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:12	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:12	
SM 2540 C	Total Diss. Solids	1200	mg/L	10			W425191	JDM	06/18/14 15:55	
SM 2540 D	Total Susp. Solids	< 5.0	mg/L	5.0			W425196	JDM	06/18/14 15:55	
SM 4500-P-E	Phosphorus	0.748	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32	
SM 5310B ✓	Total Organic Carbon	10.2	mg/L	1.00	0.24		W425306	SM	06/20/14 14:29	
Anions by Ion Chromatography										
EPA 300.0	Chloride	96.7	mg/L	10.0	2.35	50	W426139	AEW	06/25/14 22:25	D2
EPA 300.0	Fluoride	4.77	mg/L	0.50	0.14	5	W426139	AEW	06/25/14 22:14	D1
EPA 300.0	Sulfate as SO ₄	342	mg/L	15.0	2.75	50	W426139	AEW	06/25/14 22:25	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



72

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0347
Reported: 14-Jul-14 15:06

Client Sample ID: **14084**SVL Sample ID: **W4F0347-09 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 11-Jun-14 10:55
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	6.50	mg/L	0.300	0.220	10	W426076	ARP	07/01/14 13:46	D2,M3
EPA 353.2	Nitrate/Nitrite as N	1.55	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:51	
SM 2320B	Total Alkalinity	477	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:25	
SM 2320B	Bicarbonate	477	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:25	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:25	
SM 2540 C	Total Diss. Solids	1090	mg/L	40			W425191	JDM	06/18/14 15:55	D1
SM 4500-P-E	Phosphorus	2.36	mg/L	0.050	0.016	5	W427064	SM	07/01/14 13:32	D2

Anions by Ion Chromatography

EPA 300.0	Chloride	257	mg/L	10.0	2.35	50	W426139	AEW	06/25/14 22:47	D2
EPA 300.0	Fluoride	9.93	mg/L	0.50	0.14	5	W426139	AEW	06/25/14 22:36	D2
EPA 300.0	Sulfate as SO ₄	365	mg/L	15.0	2.75	50	W426139	AEW	06/25/14 22:47	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



73

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
 Work Order: W4F0347
 Reported: 14-Jul-14 15:06

Client Sample ID: **14125**SVL Sample ID: **W4F0347-10 (Ground Water)****Sample Report Page 1 of 1**

Sampled: 14-Jun-14 12:00
 Received: 17-Jun-14
 Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426076	ARP	07/01/14 13:53
EPA 353.2	Nitrate/Nitrite as N	2.01	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:52
SM 2320B	Total Alkalinity	383	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:37
SM 2320B	Bicarbonate	383	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:37
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:37
SM 2540 C	Total Diss. Solids	441	mg/L	10			W425191	JDM	06/18/14 15:55
SM 4500-P-E	Phosphorus	0.010	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32

Anions by Ion Chromatography

EPA 300.0	Chloride	13.7	mg/L	5.00	1.18	25	W426139	AEW	06/25/14 23:09	D2
EPA 300.0	Fluoride	0.34	mg/L	0.10	0.03		W426139	AEW	06/25/14 22:58	
EPA 300.0	Sulfate as SO ₄	40.0	mg/L	0.30	0.06		W426139	AEW	06/25/14 22:58	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0348 Method Type: _____

Sample ID: W4F0348-01

Client ID: 14078

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14182B
7440-70-2	Calcium	103000	ug/L			P	29.3	40.4	1	THERMO3	14182B
7439-95-4	Magnesium	46500	ug/L			P	90.9	202	1	THERMO3	14182B
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14182B
7439-98-7	Molybdenum	145	ug/L			P	2.7	8.1	1	THERMO3	14182B
7440-09-7	Potassium	4990	ug/L			P	172	505	1	THERMO3	14182B
7782-49-2	Selenium	2.4	ug/L			MS	0.23	2.0	1	PE ICPMS DRC-E	14188C
7440-23-5	Sodium	31200	ug/L			P	65.7	505	1	THERMO3	14182B
7440-62-2	Vanadium	2.2	ug/L	J		P	1.7	5.0	1	THERMO3	14182B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14182B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JS
6/19/14
9/19/14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0348

Method Type: _____

Sample ID: W4F0348-02

Client ID: 14093

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	14.3	ug/L		P	0.69	2.0	1	THERMO3	14182B	
7440-70-2	Calcium	161000	ug/L		P	29.3	40.4	1	THERMO3	14182B	
7439-95-4	Magnesium	146000	ug/L		P	90.9	202	1	THERMO3	14182B	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14182B	
7439-98-7	Molybdenum	59.1	ug/L		P	2.7	8.1	1	THERMO3	14182B	
7440-09-7	Potassium	22900	ug/L		P	172	505	1	THERMO3	14182B	
7782-49-2	Selenium	307	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14188C	
7440-23-5	Sodium	84200	ug/L		P	65.7	505	1	THERMO3	14182B	
7440-62-2	Vanadium	13.1	ug/L		P	1.7	5.0	1	THERMO3	14182B	
7440-66-6	Zinc	211	ug/L		P	3.2	10.1	1	THERMO3	14182B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

JS/
 Settanta
 9/19/14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0348

Method Type:

Sample ID: W4F0348-05

Client ID: 14099

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	3.6	ug/L		P	0.69	2.0	1	THERMO3	14182B	
7440-70-2	Calcium	125000	ug/L		P	29.3	40.4	1	THERMO3	14182B	
7439-95-4	Magnesium	137000	ug/L		P	90.9	202	1	THERMO3	14182B	
7439-96-5	Manganese	41.2	ug/L		P	1.3	4.0	1	THERMO3	14182B	
7439-98-7	Molybdenum	15.2	ug/L		P	2.7	8.1	1	THERMO3	14182B	
7440-09-7	Potassium	12600	ug/L		P	172	505	1	THERMO3	14182B	
7782-49-2	Selenium	19.6	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14188C	
7440-23-5	Sodium	39100	ug/L	-	P	65.7	505	1	THERMO3	14182B	
7440-62-2	Vanadium	3.3	ug/L	J	P	1.7	5.0	1	THERMO3	14182B	
7440-66-6	Zinc	65.3	ug/L		P	3.2	10.1	1	THERMO3	14182B	

Color Before: COLORLESS

Clarity Before: CLEAR

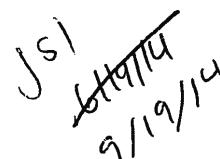
Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.


 6/19/14
 9/19/14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0348 Method Type: _____

Sample ID: W4F0348-03

Client ID: 14100

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	3.5	ug/L		P	0.69	2.0	1	THERMO3	14182B	
7440-70-2	Calcium	125000	ug/L		P	29.3	40.4	1	THERMO3	14182B	
7439-95-4	Magnesium	136000	ug/L		P	90.9	202	1	THERMO3	14182B	
7439-96-5	Manganese	41.1	ug/L		P	1.3	4.0	1	THERMO3	14182B	
7439-98-7	Molybdenum	14.9	ug/L		P	2.7	8.1	1	THERMO3	14182B	
7440-09-7	Potassium	12600	ug/L		P	172	505	1	THERMO3	14182B	
7782-49-2	Selenium	21.7	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14188C	
7440-23-5	Sodium	39100	ug/L		P	65.7	505	1	THERMO3	14182B	
7440-62-2	Vanadium	3.2	ug/L	J	P	1.7	5.0	1	THERMO3	14182B	
7440-66-6	Zinc	65.5	ug/L		P	3.2	10.1	1	THERMO3	14182B	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

*JSL
STATUS
6/19/14*

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0348 Method Type: _____

Sample ID: W4F0348-06

Client ID: 14102

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

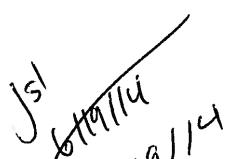
Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14182B
7440-70-2	Calcium	65100	ug/L			P	29.3	40.4	1	THERMO3	14182B
7439-95-4	Magnesium	43900	ug/L			P	90.9	202	1	THERMO3	14182B
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14182B
7439-98-7	Molybdenum	53.9	ug/L			P	2.7	8.1	1	THERMO3	14182B
7440-09-7	Potassium	2490	ug/L			P	172	505	1	THERMO3	14182B
7782-49-2	Selenium	1.2	ug/L	J		MS	0.23	2.0	1	PE ICPMS DRC-E	14188C
7440-23-5	Sodium	14700	ug/L			P	65.7	505	1	THERMO3	14182B
7440-62-2	Vanadium	10.5	ug/L			P	1.7	5.0	1	THERMO3	14182B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14182B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES _____

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.


 6/19/14
 a/19/14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0348

Method Type:

Sample ID: W4F0348-04

Client ID: 14103

Contract:

Lab Code: SVL

Case No.:

SAS No.:

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14182B
7440-70-2	Calcium	70100	ug/L			P	29.3	40.4	1	THERMO3	14182B
7439-95-4	Magnesium	43600	ug/L			P	90.9	202	1	THERMO3	14182B
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14182B
7439-98-7	Molybdenum	52.3	ug/L			P	2.7	8.1	1	THERMO3	14182B
7440-09-7	Potassium	2700	ug/L			P	172	505	1	THERMO3	14182B
7782-49-2	Selenium	1.3	ug/L	J		MS	0.23	2.0	1	PE ICPMS DRC-E	14188C
7440-23-5	Sodium	14300	ug/L			P	65.7	505	1	THERMO3	14182B
7440-62-2	Vanadium	13.5	ug/L			P	1.7	5.0	1	THERMO3	14182B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14182B

Color Before: COLORLESS

Clarity Before: CLEAR

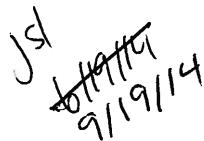
Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.


 06/19/14
 9/19/14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0348 Method Type: _____

Sample ID: W4F0348-01

Client ID: 14078

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	462000	ug/L			P	443	923	1	Optima A	14181B-W425143
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	Optima A	14181B-W425143
7440-70-2	Calcium	105000	ug/L			P	29.0	40.0	1	Optima A	14181B-W425143
7439-95-4	Magnesium	48700	ug/L			P	90.0	200	1	Optima A	14181B-W425143
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	Optima A	14181B-W425143
7439-98-7	Molybdenum	142	ug/L			P	2.7	8.0	1	Optima A	14181B-W425143
7440-09-7	Potassium	5000	ug/L			P	170	500	1	Optima A	14181B-W425143
7782-49-2	Selenium	2.5	ug/L			MS	0.23	2.0	1	PE ICPMS DRC-E	14188C
7440-23-5	Sodium	33200	ug/L			P	65.0	500	1	Optima A	14181B-W425143
7440-62-2	Vanadium	3.3	ug/L	J		P	1.7	5.0	1	Optima A	14181B-W425143
7440-66-6	Zinc	5.3	ug/L	J		P	3.2	10.0	1	Optima A	14181B-W425143

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JSL
7/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0348 Method Type: _____

Sample ID: W4F0348-02

Client ID: 14093

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	957000	ug/L		P	443	923	1	Optima A	14181B-W425143	
7440-43-9	Cadmium	14.1	ug/L		P	0.68	2.0	1	Optima A	14181B-W425143	
7440-70-2	Calcium	149000	ug/L		P	29.0	40.0	1	Optima A	14181B-W425143	
7439-95-4	Magnesium	142000	ug/L		P	90.0	200	1	Optima A	14181B-W425143	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	Optima A	14181B-W425143	
7439-98-7	Molybdenum	54.1	ug/L		P	2.7	8.0	1	Optima A	14181B-W425143	
7440-09-7	Potassium	22000	ug/L		P	170	500	1	Optima A	14181B-W425143	
7782-49-2	Selenium	280	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14188C	
7440-23-5	Sodium	86600	ug/L		P	65.0	500	1	Optima A	14181B-W425143	
7440-62-2	Vanadium	15.3	ug/L		P	1.7	5.0	1	Optima A	14181B-W425143	
7440-66-6	Zinc	216	ug/L		P	3.2	10.0	1	Optima A	14181B-W425143	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

SL
9/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0348 Method Type: _____

Sample ID: W4F0348-05

Client ID: 14099

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	834000	ug/L		P	443	923	1	Optima A	14181B-W425143	
7440-43-9	Cadmium	4.4	ug/L		P	0.68	2.0	1	Optima A	14181B-W425143	
7440-70-2	Calcium	117000	ug/L		P	29.0	40.0	1	Optima A	14181B-W425143	
7439-95-4	Magnesium	132000	ug/L		P	90.0	200	1	Optima A	14181B-W425143	
7439-96-5	Manganese	37.7	ug/L		P	1.3	4.0	1	Optima A	14181B-W425143	
7439-98-7	Molybdenum	11.3	ug/L		P	2.7	8.0	1	Optima A	14181B-W425143	
7440-09-7	Potassium	11700	ug/L		P	170	500	1	Optima A	14181B-W425143	
7782-49-2	Selenium	20.1	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14189A	
7440-23-5	Sodium	39000	ug/L		P	65.0	500	1	Optima A	14181B-W425143	
7440-62-2	Vanadium	4.4	ug/L	J	P	1.7	5.0	1	Optima A	14181B-W425143	
7440-66-6	Zinc	69.2	ug/L		P	3.2	10.0	1	Optima A	14181B-W425143	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

J51
6/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES

SDG No.: W4F0348

Method Type: _____

Sample ID: W4F0348-03

Client ID: 14100

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____ Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	838000	ug/L		P	443	923	1	Optima A	14181B-W425143	
7440-43-9	Cadmium	4.5	ug/L		P	0.68	2.0	1	Optima A	14181B-W425143	
7440-70-2	Calcium	114000	ug/L		P	29.0	40.0	1	Optima A	14181B-W425143	
7439-95-4	Magnesium	134000	ug/L		P	90.0	200	1	Optima A	14181B-W425143	
7439-96-5	Manganese	37.8	ug/L		P	1.3	4.0	1	Optima A	14181B-W425143	
7439-98-7	Molybdenum	10.7	ug/L		P	2.7	8.0	1	Optima A	14181B-W425143	
7440-09-7	Potassium	11400	ug/L		P	170	500	1	Optima A	14181B-W425143	
7782-49-2	Selenium	20.1	ug/L		MS	0.23	2.0	1	PE ICPMS DRC-E	14188C	
7440-23-5	Sodium	36900	ug/L		P	65.0	500	1	Optima A	14181B-W425143	
7440-62-2	Vanadium	4.5	ug/L	J	P	1.7	5.0	1	Optima A	14181B-W425143	
7440-66-6	Zinc	71.3	ug/L		P	3.2	10.0	1	Optima A	14181B-W425143	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

_____JS
6/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0348 Method Type: _____

Sample ID: W4F0348-06

Client ID: 14102

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	310000	ug/L		P	443	923	1	Optima A	14181B-W425143	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	Optima A	14181B-W425143	
7440-70-2	Calcium	58800	ug/L		P	29.0	40.0	1	Optima A	14181B-W425143	
7439-95-4	Magnesium	39700	ug/L		P	90.0	200	1	Optima A	14181B-W425143	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	Optima A	14181B-W425143	
7439-98-7	Molybdenum	45.6	ug/L		P	2.7	8.0	1	Optima A	14181B-W425143	
7440-09-7	Potassium	2200	ug/L		P	170	500	1	Optima A	14181B-W425143	
7782-49-2	Selenium	1.1	ug/L	J	MS	0.23	2.0	1	PE ICPMS DRC-E	14189A	
7440-23-5	Sodium	13000	ug/L		P	65.0	500	1	Optima A	14181B-W425143	
7440-62-2	Vanadium	10.7	ug/L		P	1.7	5.0	1	Optima A	14181B-W425143	
7440-66-6	Zinc	3.5	ug/L	J	P	3.2	10.0	1	Optima A	14181B-W425143	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

(S)
9/19/2014

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0348 Method Type: _____

Sample ID: W4F0348-04

Client ID: 14103

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	334000	ug/L			P	443	923	1	Optima A	14181B-W425143
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	Optima A	14181B-W425143
7440-70-2	Calcium	65600	ug/L			P	29.0	40.0	1	Optima A	14181B-W425143
7439-95-4	Magnesium	41300	ug/L			P	90.0	200	1	Optima A	14181B-W425143
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	Optima A	14181B-W425143
7439-98-7	Molybdenum	45.7	ug/L			P	2.7	8.0	1	Optima A	14181B-W425143
7440-09-7	Potassium	2540	ug/L			P	170	500	1	Optima A	14181B-W425143
7782-49-2	Selenium	1.3	ug/L	J		MS	0.23	2.0	1	PE ICPMS DRC-E	14189A
7440-23-5	Sodium	13100	ug/L			P	65.0	500	1	Optima A	14181B-W425143
7440-62-2	Vanadium	13.6	ug/L			P	1.7	5.0	1	Optima A	14181B-W425143
7440-66-6	Zinc	4.3	ug/L	J		P	3.2	10.0	1	Optima A	14181B-W425143

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

JS
6/19/2014



75

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0348

Reported: 08-Jul-14 18:04

Client Sample ID: **14078**SVL Sample ID: **W4F0348-01 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 10-Jun-14 11:00

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	1.06	mg/L	0.030	0.022		W426076	ARP	07/01/14 13:54
EPA 353.2	Nitrate/Nitrite as N	4.10	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:54
SM 2320B	Total Alkalinity	407	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:49
SM 2320B	Bicarbonate	407	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:49
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:49
SM 2540 C	Total Diss. Solids	467	mg/L	10			W425133	AGF	06/17/14 16:50
SM 4500-P-E	Phosphorus	0.031	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32

Anions by Ion Chromatography

EPA 300.0	Chloride	23.7	mg/L	5.00	1.18	25	W426172	AEW	06/26/14 13:49	D2,M3
EPA 300.0	Fluoride	0.39	mg/L	0.10	0.03		W426172	AEW	06/26/14 13:38	
EPA 300.0	Sulfate as SO ₄	66.8	mg/L	7.50	1.38	25	W426172	AEW	06/26/14 13:49	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



76

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0348

Reported: 08-Jul-14 18:04

Client Sample ID: **14093**SVL Sample ID: **W4F0348-02 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 12-Jun-14 08:40
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426076	ARP	07/01/14 14:25	
EPA 353.2	Nitrate/Nitrite as N	2.07	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:55	
SM 2320B	Total Alkalinity	603	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:58	
SM 2320B	Bicarbonate	603	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:58	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 10:58	
SM 2540 C	Total Diss. Solids	1350	mg/L	10			W425191	JDM	06/18/14 15:55	
SM 4500-P-E	Phosphorus	0.335	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32	
Anions by Ion Chromatography										
EPA 300.0	Chloride	96.1	mg/L	10.0	2.35	50	W426172	AEG	06/26/14 15:34	D2
EPA 300.0	Fluoride	2.98	mg/L	0.50	0.14	5	W426172	AEG	06/26/14 15:24	D1
EPA 300.0	Sulfate as SO ₄	404	mg/L	15.0	2.75	50	W426172	AEG	06/26/14 15:34	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
9/19/14



77

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0348

Reported: 08-Jul-14 18:04

Client Sample ID: 14100

SVL Sample ID: W4F0348-03 (Surface Water)

Sample Report Page 1 of 1

Sampled: 12-Jun-14 13:00

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426076	ARP	07/01/14 13:57
EPA 353.2	Nitrate/Nitrite as N	1.97	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:56
SM 2320B	Total Alkalinity	886	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:10
SM 2320B	Bicarbonate	886	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:10
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:10
SM 2540 C	Total Diss. Solids	916	mg/L	10			W425191	JDM	06/18/14 15:55
SM 4500-P-E	Phosphorus	0.189	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32

Anions by Ion Chromatography

EPA 300.0	Chloride	16.3	mg/L	5.00	1.18	25	W426172	AEW	06/26/14 15:56	D2
EPA 300.0	Fluoride	1.01	mg/L	0.10	0.03		W426172	AEW	06/26/14 15:45	
EPA 300.0	Sulfate as SO ₄	57.1	mg/L	7.50	1.38	25	W426172	AEW	06/26/14 15:56	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

(JS)
6/19/14
a/19/14



78

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0348

Reported: 08-Jul-14 18:04

Client Sample ID: 14103

SVL Sample ID: W4F0348-04 (Surface Water)

Sample Report Page 1 of 1

Sampled: 12-Jun-14 14:15
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426076	ARP	07/01/14 13:58
EPA 353.2	Nitrate/Nitrite as N	0.490	mg/L	0.050	0.022		W426085	ARP	07/02/14 18:58
SM 2320B	Total Alkalinity	322	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:29
SM 2320B	Bicarbonate	305	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:29
SM 2320B	Carbonate	16.9	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:29
SM 2540 C	Total Diss. Solids	359	mg/L	10			W425191	JDM	06/18/14 15:55
SM 4500-P-E	Phosphorus	< 0.010	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32

Anions by Ion Chromatography

EPA 300.0	Chloride	9.04	mg/L	0.20	0.05		W426172	AEW	06/26/14 16:06
EPA 300.0	Fluoride	0.27	mg/L	0.10	0.03		W426172	AEW	06/26/14 16:06
EPA 300.0	Sulfate as SO ₄	41.0	mg/L	0.30	0.06		W426172	AEW	06/26/14 16:06

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

6/11/14
9/1/14



One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

79

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0348

Reported: 08-Jul-14 18:04

Client Sample ID: **14099**SVL Sample ID: **W4F0348-05 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 12-Jun-14 12:30

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.035	mg/L	0.030	0.022		W426076	ARP	07/01/14 14:05	
EPA 353.2	Nitrate/Nitrite as N	1.89	mg/L	0.050	0.022		W426085	ARP	07/02/14 19:05	
SM 2320B	Total Alkalinity	878	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:38	
SM 2320B	Bicarbonate	878	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:38	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:38	
SM 2540 C	Total Diss. Solids	920	mg/L	10			W425191	JDM	06/18/14 15:55	
SM 4500-P-E	Phosphorus	0.193	mg/L	0.010	0.003		W427064	SM	07/01/14 13:32	

Anions by Ion Chromatography

EPA 300.0	Chloride	15.9	mg/L	5.00	1.18	25	W426172	AEW	06/26/14 16:38	D2
EPA 300.0	Fluoride	1.03	mg/L	0.10	0.03		W426172	AEW	06/26/14 16:27	
EPA 300.0	Sulfate as SO ₄	57.1	mg/L	7.50	1.38	25	W426172	AEW	06/26/14 16:38	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
6/19/14
9/19/14



80

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0348
Reported: 08-Jul-14 18:04

Client Sample ID: **14102**SVL Sample ID: **W4F0348-06 (Surface Water)**

Sample Report Page 1 of 1

Sampled: 12-Jun-14 13:45
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426076	ARP	07/01/14 14:10
EPA 353.2	Nitrate/Nitrite as N	0.236	mg/L	0.050	0.022		W426085	ARP	07/02/14 19:06
SM 2320B	Total Alkalinity	315	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:57
SM 2320B	Bicarbonate	296	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:57
SM 2320B	Carbonate	19.2	mg/L as CaCO ₃	1.0			W425172	AGF	06/19/14 11:57
SM 2540 C	Total Diss. Solids	362	mg/L	10			W425191	JDM	06/18/14 15:55
SM 4500-P-E	Phosphorus	0.017	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52

Anions by Ion Chromatography

EPA 300.0	Chloride	9.06	mg/L	0.20	0.05		W426172	AEW	06/26/14 17:09
EPA 300.0	Fluoride	0.24	mg/L	0.10	0.03		W426172	AEW	06/26/14 17:09
EPA 300.0	Sulfate as SO ₄	41.7	mg/L	0.30	0.06		W426172	AEW	06/26/14 17:09

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

JS
6/19/14
9/19/14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

<u>Sample ID:</u> W4F0349-01	<u>Client ID:</u> 14119
------------------------------	-------------------------

<u>Contract:</u> _____	<u>Lab Code:</u> SVL	<u>Case No.:</u> _____	<u>SAS No.:</u> _____
------------------------	----------------------	------------------------	-----------------------

<u>Matrix:</u> WATER	<u>Date Received:</u> 6/17/2014	<u>Level:</u> LOW
----------------------	---------------------------------	-------------------

<u>% Solids:</u>	<u>Total/Dissolved:</u>	<u>Dissolved</u>
------------------	-------------------------	------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14182B
7440-70-2	Calcium	149000	ug/L			P	29.3	40.4	1	THERMO3	14182B
7439-95-4	Magnesium	95800	ug/L			P	90.9	202	1	THERMO3	14182B
7439-96-5	Manganese	82.5	ug/L			P	1.3	4.0	1	THERMO3	14182B
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.1	1	THERMO3	14182B
7440-09-7	Potassium	11500	ug/L			P	172	505	1	THERMO3	14182B
7782-49-2	Selenium	0.88	ug/L	J		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01
7440-23-5	Sodium	43400	ug/L			P	65.7	505	1	THERMO3	14182B
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14182B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14182B

<u>Color Before:</u> COLORLESS	<u>Clarity Before:</u> CLEAR	<u>Texture:</u> _____
--------------------------------	------------------------------	-----------------------

<u>Color After:</u> COLORLESS	<u>Clarity After:</u> CLEAR	<u>Artifacts:</u> _____
-------------------------------	-----------------------------	-------------------------

Comments: _____

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-02

Client ID: 14120

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14182B
7440-70-2	Calcium	141000	ug/L			P	29.3	40.4	1	THERMO3	14182B
7439-95-4	Magnesium	92100	ug/L			P	90.9	202	1	THERMO3	14182B
7439-96-5	Manganese	75.1	ug/L			P	1.3	4.0	1	THERMO3	14182B
7439-98-7	Molybdenum	3.0	ug/L	J		P	2.7	8.1	1	THERMO3	14182B
7440-09-7	Potassium	11300	ug/L			P	172	505	1	THERMO3	14182B
7782-49-2	Selenium	1.0	ug/L	J		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01
7440-23-5	Sodium	49800	ug/L			P	65.7	505	1	THERMO3	14182B
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	THERMO3	14182B
7440-66-6	Zinc	3.2	ug/L	J		P	3.2	10.1	1	THERMO3	14182B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-03	Client ID: 14121
-----------------------	------------------

Contract: _____	Lab Code: SVL	Case No.: _____	SAS No.: _____
-----------------	---------------	-----------------	----------------

Matrix: WATER	Date Received: 6/17/2014	Level: LOW
---------------	--------------------------	------------

% Solids: _____	Total/Dissolved: Dissolved
-----------------	----------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14182B
7440-70-2	Calcium	78400	ug/L			P	29.3	40.4	1	THERMO3	14182B
7439-95-4	Magnesium	75900	ug/L			P	90.9	202	1	THERMO3	14182B
7439-96-5	Manganese	96.3	ug/L			P	1.3	4.0	1	THERMO3	14182B
7439-98-7	Molybdenum	3.0	ug/L	J		P	2.7	8.1	1	THERMO3	14182B
7440-09-7	Potassium	8630	ug/L			P	172	505	1	THERMO3	14182B
7782-49-2	Selenium	1.4	ug/L	J		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01
7440-23-5	Sodium	45800	ug/L			P	65.7	505	1	THERMO3	14182B
7440-62-2	Vanadium	3.5	ug/L	J		P	1.7	5.0	1	THERMO3	14182B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14182B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-04

Client ID: 14122

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14182B
7440-70-2	Calcium	78000	ug/L			P	29.3	40.4	1	THERMO3	14182B
7439-95-4	Magnesium	75300	ug/L			P	90.9	202	1	THERMO3	14182B
7439-96-5	Manganese	94.8	ug/L			P	1.3	4.0	1	THERMO3	14182B
7439-98-7	Molybdenum	2.9	ug/L	J		P	2.7	8.1	1	THERMO3	14182B
7440-09-7	Potassium	8530	ug/L			P	172	505	1	THERMO3	14182B
7782-49-2	Selenium	1.4	ug/L	J		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01
7440-23-5	Sodium	45800	ug/L			P	65.7	505	1	THERMO3	14182B
7440-62-2	Vanadium	3.3	ug/L	J		P	1.7	5.0	1	THERMO3	14182B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14182B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES _____

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-05

Client ID: 14123

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14182B
7440-70-2	Calcium	79300	ug/L			P	29.3	40.4	1	THERMO3	14182B
7439-95-4	Magnesium	75500	ug/L			P	90.9	202	1	THERMO3	14182B
7439-96-5	Manganese	97.4	ug/L			P	1.3	4.0	1	THERMO3	14182B
7439-98-7	Molybdenum	3.2	ug/L	J		P	2.7	8.1	1	THERMO3	14182B
7440-09-7	Potassium	8600	ug/L			P	172	505	1	THERMO3	14182B
7782-49-2	Selenium	1.2	ug/L	J		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01
7440-23-5	Sodium	43800	ug/L			P	65.7	505	1	THERMO3	14182B
7440-62-2	Vanadium	3.1	ug/L	J		P	1.7	5.0	1	THERMO3	14182B
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.1	1	THERMO3	14182B

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-06

Client ID: 14124

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: Dissolved

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
7440-43-9	Cadmium	0.69	ug/L	U		P	0.69	2.0	1	THERMO3	14182B
7440-70-2	Calcium	135000	ug/L			P	29.3	40.4	1	THERMO3	14182B
7439-95-4	Magnesium	52900	ug/L			P	90.9	202	1	THERMO3	14182B
7439-96-5	Manganese	243	ug/L			P	1.3	4.0	1	THERMO3	14182B
7439-98-7	Molybdenum	43.2	ug/L			P	2.7	8.1	1	THERMO3	14182B
7440-09-7	Potassium	11900	ug/L			P	172	505	1	THERMO3	14182B
7782-49-2	Selenium	2.3	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01
7440-23-5	Sodium	38200	ug/L			P	65.7	505	1	THERMO3	14182B
7440-62-2	Vanadium	9.0	ug/L			P	1.7	5.0	1	THERMO3	14182B
7440-66-6	Zinc	62.1	ug/L			P	3.2	10.1	1	THERMO3	14182B

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: BROWN Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-01

Client ID: 14119

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	713000	ug/L			P	443	923	1	Optima A	14181B-W425144
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	Optima A	14181B-W425144
7440-70-2	Calcium	135000	ug/L		JSL	P	29.0	40.0	1	Optima A	14181B-W425144
7439-95-4	Magnesium	91200	ug/L			P	90.0	200	1	Optima A	14181B-W425144
7439-96-5	Manganese	73.7	ug/L			P	1.3	4.0	1	Optima A	14181B-W425144
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	Optima A	14181B-W425144
7440-09-7	Potassium	10500	ug/L			P	170	500	1	Optima A	14181B-W425144
7782-49-2	Selenium	0.86	ug/L	J		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01
7440-23-5	Sodium	41600	ug/L			P	65.0	500	1	Optima A	14181B-W425144
7440-62-2	Vanadium	2.0	ug/L	J		P	1.7	5.0	1	Optima A	14181B-W425144
7440-66-6	Zinc	6.9	ug/L	J		P	3.2	10.0	1	Optima A	14181B-W425144

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

8-25-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-02

Client ID: 14120

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	707000	ug/L		P	443	923	1	Optima A	14181B-W425144	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	Optima A	14181B-W425144	
7440-70-2	Calcium	135000	ug/L		P	29.0	40.0	1	Optima A	14181B-W425144	
7439-95-4	Magnesium	90000	ug/L		P	90.0	200	1	Optima A	14181B-W425144	
7439-96-5	Manganese	81.4	ug/L		P	1.3	4.0	1	Optima A	14181B-W425144	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	Optima A	14181B-W425144	
7440-09-7	Potassium	10700	ug/L		P	170	500	1	Optima A	14181B-W425144	
7782-49-2	Selenium	1.0	ug/L	J	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01	
7440-23-5	Sodium	51200	ug/L		P	65.0	500	1	Optima A	14181B-W425144	
7440-62-2	Vanadium	3.2	ug/L	J	P	1.7	5.0	1	Optima A	14181B-W425144	
7440-66-6	Zinc	9.6	ug/L	J	P	3.2	10.0	1	Optima A	14181B-W425144	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

TS 8-25-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

<u>Sample ID:</u> W4F0349-03	<u>Client ID:</u> 14121
------------------------------	-------------------------

<u>Contract:</u> _____	<u>Lab Code:</u> SVL	<u>Case No.:</u> _____	<u>SAS No.:</u> _____
------------------------	----------------------	------------------------	-----------------------

<u>Matrix:</u> WATER	<u>Date Received:</u> 6/17/2014	<u>Level:</u> LOW
----------------------	---------------------------------	-------------------

<u>% Solids:</u>	<u>Total/Dissolved:</u>	<u>Total Recoverable</u>
------------------	-------------------------	--------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	492000	ug/L		P	443	923	1	Optima A	14181B-W425144	
7440-43-9	Cadmium	1.2	ug/L	J	P	0.68	2.0	1	Optima A	14181B-W425144	
7440-70-2	Calcium	74900	ug/L		P	29.0	40.0	1	Optima A	14181B-W425144	
7439-95-4	Magnesium	74000	ug/L		P	90.0	200	1	Optima A	14181B-W425144	
7439-96-5	Manganese	201	ug/L	J	P	1.3	4.0	1	Optima A	14181B-W425144	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	Optima A	14181B-W425144	
7440-09-7	Potassium	8220	ug/L		P	170	500	1	Optima A	14181B-W425144	
7782-49-2	Selenium	1.5	ug/L	J	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01	
7440-23-5	Sodium	45700	ug/L		P	65.0	500	1	Optima A	14181B-W425144	
7440-62-2	Vanadium	8.2	ug/L		P	1.7	5.0	1	Optima A	14181B-W425144	
7440-66-6	Zinc	13.6	ug/L		P	3.2	10.0	1	Optima A	14181B-W425144	

<u>Color Before:</u> COLORLESS	<u>Clarity Before:</u> CLEAR	<u>Texture:</u> _____
--------------------------------	------------------------------	-----------------------

<u>Color After:</u> COLORLESS	<u>Clarity After:</u> CLEAR	<u>Artifacts:</u> YES
-------------------------------	-----------------------------	-----------------------

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

• The 8-25-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-04

Client ID: 14122

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	477000	ug/L		P	443	923	1	Optima A	14181B-W425144	
7440-43-9	Cadmium	0.81	ug/L	J	P	0.68	2.0	1	Optima A	14181B-W425144	
7440-70-2	Calcium	72400	ug/L		P	29.0	40.0	1	Optima A	14181B-W425144	
7439-95-4	Magnesium	71800	ug/L	J	P	90.0	200	1	Optima A	14181B-W425144	
7439-96-5	Manganese	152	ug/L	J	P	1.3	4.0	1	Optima A	14181B-W425144	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	Optima A	14181B-W425144	
7440-09-7	Potassium	7780	ug/L		P	170	500	1	Optima A	14181B-W425144	
7782-49-2	Selenium	1.4	ug/L	J	MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08J01	
7440-23-5	Sodium	43400	ug/L		P	65.0	500	1	Optima A	14181B-W425144	
7440-62-2	Vanadium	6.8	ug/L		P	1.7	5.0	1	Optima A	14181B-W425144	
7440-66-6	Zinc	10.5	ug/L		P	3.2	10.0	1	Optima A	14181B-W425144	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____
 Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

TWJ 8-25-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-05

Client ID: 14123

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	486000	ug/L			P	443	923	1	Optima A	14181B-W425144
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	Optima A	14181B-W425144
7440-70-2	Calcium	73900	ug/L			P	29.0	40.0	1	Optima A	14181B-W425144
7439-95-4	Magnesium	73100	ug/L			P	90.0	200	1	Optima A	14181B-W425144
7439-96-5	Manganese	104	ug/L	-		P	1.3	4.0	1	Optima A	14181B-W425144
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	Optima A	14181B-W425144
7440-09-7	Potassium	8100	ug/L	-		P	170	500	1	Optima A	14181B-W425144
7782-49-2	Selenium	1.4	ug/L	J		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01
7440-23-5	Sodium	41300	ug/L			P	65.0	500	1	Optima A	14181B-W425144
7440-62-2	Vanadium	5.2	ug/L			P	1.7	5.0	1	Optima A	14181B-W425144
7440-66-6	Zinc	8.7	ug/L	J		P	3.2	10.0	1	Optima A	14181B-W425144

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

8-25-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-06

Client ID: 14124

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	574000	ug/L		P	443	923	1	Optima A	14181B-W425144	
7440-43-9	Cadmium	2.4	ug/L		P	0.68	2.0	1	Optima A	14181B-W425144	
7440-70-2	Calcium	140000	ug/L		P	29.0	40.0	1	Optima A	14181B-W425144	
7439-95-4	Magnesium	54400	ug/L		P	90.0	200	1	Optima A	14181B-W425144	
7439-96-5	Manganese	291	ug/L		P	1.3	4.0	1	Optima A	14181B-W425144	
7439-98-7	Molybdenum	37.4	ug/L		P	2.7	8.0	1	Optima A	14181B-W425144	
7440-09-7	Potassium	12200	ug/L		P	170	500	1	Optima A	14181B-W425144	
7782-49-2	Selenium	2.8	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01	
7440-23-5	Sodium	38400	ug/L		P	65.0	500	1	Optima A	14181B-W425144	
7440-62-2	Vanadium	23.4	ug/L		P	1.7	5.0	1	Optima A	14181B-W425144	
7440-66-6	Zinc	144	ug/L*		P	3.2	10.0	1	Optima A	14181B-W425144	

Color Before: BROWN Clarity Before: CLOUDY Texture: _____

Color After: BROWN Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT IN UNFILTERED FRACTION.

8-25-14

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0349 Method Type: _____

Sample ID: W4F0349-07

Client ID: 14126

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	443	ug/L	U		P	443	923	1	Optima A	14181B-W425144
7440-43-9	Cadmium,	0.68	ug/L	U		P	0.68	2.0	1	Optima A	14181B-W425144
7440-70-2	Calcium,	29.0	ug/L	U		P	29.0	40.0	1	Optima A	14181B-W425144
7439-95-4	Magnesium,	90.0	ug/L	U		P	90.0	200	1	Optima A	14181B-W425144
7439-96-5	Manganese,	1.3	ug/L	U		P	1.3	4.0	1	Optima A	14181B-W425144
7439-98-7	Molybdenum,	2.7	ug/L	U		P	2.7	8.0	1	Optima A	14181B-W425144
7440-09-7	Potassium	170	ug/L	U		P	170	500	1	Optima A	14181B-W425144
7782-49-2	Selenium	0.52	ug/L	U		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G08f01
7440-23-5	Sodium	330	ug/L	J		P	65.0	500	1	Optima A	14181B-W425144
7440-62-2	Vanadium	1.7	ug/L	U		P	1.7	5.0	1	Optima A	14181B-W425144
7440-66-6	Zinc	3.2	ug/L	U		P	3.2	10.0	1	Optima A	14181B-W425144

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

TJF 8-25-14



78

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0349
Reported: 09-Jul-14 10:16

Client Sample ID: **14119**SVL Sample ID: **W4F0349-01 (Water)****Sample Report Page 1 of 1**

Sampled: 14-Jun-14 08:30
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 11:36	R2B
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.022		W426083	ARP	07/02/14 16:50	
SM 2320B	Total Alkalinity	635	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 08:50	
SM 2320B	Bicarbonate	635	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 08:50	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 08:50	
SM 2540 C	Total Diss. Solids	882	mg/L	10			W425195	JDM	06/18/14 18:45	
SM 4500-P-E	Phosphorus	0.020	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52	
Anions by Ion Chromatography										
EPA 300.0	Chloride	42.0	mg/L	5.00	1.18	25	W426173	AEW	06/26/14 14:02	D2,M3
EPA 300.0	Fluoride	0.55	mg/L	0.10	0.03		W426173	AEW	06/26/14 13:51	
EPA 300.0	Sulfate as SO ₄	162	mg/L	7.50	1.38	25	W426173	AEW	06/26/14 14:02	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



79

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0349

Reported: 09-Jul-14 10:16

Client Sample ID: **14120**SVL Sample ID: **W4F0349-02 (Water)**

Sample Report Page 1 of 1

 Sampled: 14-Jun-14 09:30
 Received: 17-Jun-14
 Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 11:37
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.022		W426083	ARP	07/02/14 16:53
SM 2320B	Total Alkalinity	617	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:04
SM 2320B	Bicarbonate	617	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:04
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:04
SM 2540 C	Total Diss. Solids	862	mg/L	10			W425195	JDM	06/18/14 18:45
SM 4500-P-E	Phosphorus	0.169	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52

Anions by Ion Chromatography

EPA 300.0	Chloride	49.6	mg/L	5.00	1.18	25	W426173	AEG	06/26/14 16:02	D2
EPA 300.0	Fluoride	0.46	mg/L	0.10	0.03		W426173	AEG	06/26/14 15:51	
EPA 300.0	Sulfate as SO ₄	149	mg/L	7.50	1.38	25	W426173	AEG	06/26/14 16:02	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



80

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0349

Reported: 09-Jul-14 10:16

Client Sample ID: 14121

SVL Sample ID: W4F0349-03 (Water)

Sample Report Page 1 of 1

 Sampled: 14-Jun-14 10:00
 Received: 17-Jun-14
 Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 11:38
EPA 353.2	Nitrate/Nitrite as N	0.384	mg/L	0.050	0.022		W426083	ARP	07/02/14 16:55
SM 2320B	Total Alkalinity	497	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:17
SM 2320B	Bicarbonate	497	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:17
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:17
SM 2540 C	Total Diss. Solids	596	mg/L	10			W425195	JDM	06/18/14 18:45
SM 4500-P-E	Phosphorus	0.268	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52

Anions by Ion Chromatography

EPA 300.0	Chloride	44.2	mg/L	5.00	1.18	25	W426173	AEW	06/26/14 16:24	D2
EPA 300.0	Fluoride	0.34	mg/L	0.10	0.03		W426173	AEW	06/26/14 16:13	
EPA 300.0	Sulfate as SO ₄	48.9	mg/L	7.50	1.38	25	W426173	AEW	06/26/14 16:24	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



81

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0349
Reported: 09-Jul-14 10:16

Client Sample ID: **14122**SVL Sample ID: **W4F0349-04 (Water)****Sample Report Page 1 of 1**

Sampled: 14-Jun-14 10:30
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 11:40
EPA 353.2	Nitrate/Nitrite as N	0.386	mg/L	0.050	0.022		W426083	ARP	07/02/14 16:56
SM 2320B	Total Alkalinity	498	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:29
SM 2320B	Bicarbonate	498	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:29
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:29
SM 2540 C	Total Diss. Solids	600	mg/L	10			W425195	JDM	06/18/14 18:45
SM 4500-P-E	Phosphorus	0.239	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52

Anions by Ion Chromatography

EPA 300.0	Chloride	42.6	mg/L	5.00	1.18	25	W426173	AEW	06/26/14 16:46	D2
EPA 300.0	Fluoride	0.35	mg/L	0.10	0.03		W426173	AEW	06/26/14 16:35	
EPA 300.0	Sulfate as SO ₄	46.7	mg/L	7.50	1.38	25	W426173	AEW	06/26/14 16:46	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



82

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0349

Reported: 09-Jul-14 10:16

Client Sample ID: 14123

SVL Sample ID: W4F0349-05 (Water)

Sample Report Page 1 of 1

Sampled: 14-Jun-14 11:00

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.042	mg/L	0.030	0.022		W426075	ARP	07/01/14 11:41	
EPA 353.2	Nitrate/Nitrite as N	0.395	mg/L	0.050	0.022		W426083	ARP	07/02/14 16:57	M1,R2B
SM 2320B	Total Alkalinity	500	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:44	
SM 2320B	Bicarbonate	500	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:44	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:44	
SM 2540 C	Total Diss. Solids	603	mg/L	10			W425195	JDM	06/18/14 18:45	
SM 4500-P-E	Phosphorus	0.122	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52	
Anions by Ion Chromatography										
EPA 300.0	Chloride	40.9	mg/L	5.00	1.18	25	W426173	AEW	06/26/14 17:08	D2
EPA 300.0	Fluoride	0.35	mg/L	0.10	0.03		W426173	AEW	06/26/14 16:57	
EPA 300.0	Sulfate as SO ₄	49.6	mg/L	7.50	1.38	25	W426173	AEW	06/26/14 17:08	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



83

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
 18300 NE Union Hill Road, Suite 200
 Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0349
Reported: 09-Jul-14 10:16

Client Sample ID: **14124**SVL Sample ID: **W4F0349-06 (Water)****Sample Report Page 1 of 1**

Sampled: 14-Jun-14 11:30
 Received: 17-Jun-14
 Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	1.97	mg/L	0.030	0.022		W426075	ARP	07/01/14 11:42	
EPA 353.2	Nitrate/Nitrite as N	2.08	mg/L	0.050	0.022		W426083	ARP	07/02/14 16:59	
SM 2320B	Total Alkalinity	472	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:56	
SM 2320B	Bicarbonate	472	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:56	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 09:56	
SM 2540 C	Total Diss. Solids	782	mg/L	10			W425195	JDM	06/18/14 18:45	
SM 4500-P-E	Phosphorus	2.35	mg/L	0.050	0.016	5	W427065	SM	07/01/14 16:52	D2
Anions by Ion Chromatography										
EPA 300.0	Chloride	41.8	mg/L	5.00	1.18	25	W426173	AEW	06/26/14 17:51	D2
EPA 300.0	Fluoride	1.61	mg/L	0.10	0.03		W426173	AEW	06/26/14 17:40	
EPA 300.0	Sulfate as SO ₄	109	mg/L	7.50	1.38	25	W426173	AEW	06/26/14 17:51	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

84

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0349

Reported: 09-Jul-14 10:16

Client Sample ID: **14126**

SVL Sample ID: **W4F0349-07 (Water)**

Sample Report Page 1 of 1

Sampled: 14-Jun-14 13:00

Received: 17-Jun-14

Sampled By: JJ

Notes

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed
Classical Chemistry Parameters									
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 12:37
EPA 353.2	Nitrate/Nitrite as N	< 0.050	mg/L	0.050	0.022		W426083	ARP	07/02/14 17:06
SM 2320B	Total Alkalinity	1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:08
SM 2320B	Bicarbonate	1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:08
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:08
SM 2540 C	Total Diss. Solids	< 10	mg/L	10			W425195	JDM	06/18/14 18:45
SM 4500-P-E	Phosphorus	< 0.010	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52
Anions by Ion Chromatography									
EPA 300.0	Chloride	< 0.20	mg/L	0.20	0.05		W426173	AEW	06/26/14 14:57
EPA 300.0	Fluoride	< 0.10	mg/L	0.10	0.03		W426173	AEW	06/26/14 14:57
EPA 300.0	Sulfate as SO ₄	< 0.30	mg/L	0.30	0.06		W426173	AEW	06/26/14 14:57

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray

Kirby Gray
Technical Director

- 1 -

INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0350 Method Type: _____Sample ID: W4F0350-06 Client ID: 14075Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	788000	ug/L			P	443	923	1	Optima A	14182A-W425142
7440-43-9	Cadmium	0.86	ug/L	J		P	0.68	2.0	1	Optima A	14182A-W425142
7440-70-2	Calcium	118000	ug/L			P	29.0	40.0	1	Optima A	14182A-W425142
7439-95-4	Magnesium	120000	ug/L			P	90.0	200	1	Optima A	14182A-W425142
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14182A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	Optima A	14182A-W425142
7440-09-7	Potassium	10800	ug/L			P	170	500	1	Optima A	14182A-W425142
7782-49-2	Selenium	0.52	ug/L	U		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G07j00
7440-23-5	Sodium	35300	ug/L			P	65.0	500	1	Optima A	14182A-W425142
7440-62-2	Vanadium	6.0	ug/L			P	1.7	5.0	1	Optima A	14182A-W425142
7440-66-6	Zinc	20.9	ug/L			P	3.2	10.0	1	Optima A	14182A-W425142

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____Color After: COLORLESS Clarity After: CLEAR Artifacts: _____Comments: _____

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0350 Method Type: _____

Sample ID: W4F0350-09

Client ID: 14079

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1080000	ug/L		P	443	923	1	Optima A	14182A-W425142	
7440-43-9	Cadmium	0.68	ug/L	U	P	0.68	2.0	1	Optima A	14182A-W425142	
7440-70-2	Calcium	169000	ug/L		P	29.0	40.0	1	Optima A	14182A-W425142	
7439-95-4	Magnesium	159000	ug/L		P	90.0	200	1	Optima A	14182A-W425142	
7439-96-5	Manganese	23.5	ug/L		P	1.3	4.0	1	THERMO3	14182A	
7439-98-7	Molybdenum	2.7	ug/L	U	P	2.7	8.0	1	Optima A	14182A-W425142	
7440-09-7	Potassium	11500	ug/L		P	170	500	1	Optima A	14182A-W425142	
7782-49-2	Selenium	31.0	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G07j00	
7440-23-5	Sodium	32800	ug/L		P	65.0	500	1	Optima A	14182A-W425142	
7440-62-2	Vanadium	3.4	ug/L	J	P	1.7	5.0	1	Optima A	14182A-W425142	
7440-66-6	Zinc	20.3	ug/L		P	3.2	10.0	1	Optima A	14182A-W425142	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0350 Method Type: _____

Sample ID: W4F0350-02

Client ID: 14080

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	922000	ug/L			P	443	923	1	Optima A	14182A-W425142
7440-43-9	Cadmium	0.78	ug/L	J		P	0.68	2.0	1	Optima A	14182A-W425142
7440-70-2	Calcium	191000	ug/L			P	29.0	40.0	1	Optima A	14182A-W425142
7439-95-4	Magnesium	108000	ug/L			P	90.0	200	1	Optima A	14182A-W425142
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMOS	14182A
7439-98-7	Molybdenum	2.7	ug/L	U		P	2.7	8.0	1	Optima A	14182A-W425142
7440-09-7	Potassium	9010	ug/L			P	170	500	1	Optima A	14182A-W425142
7782-49-2	Selenium	72.0	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G07j00
7440-23-5	Sodium	40000	ug/L			P	65.0	500	1	Optima A	14182A-W425142
7440-62-2	Vanadium	3.6	ug/L	J		P	1.7	5.0	1	Optima A	14182A-W425142
7440-66-6	Zinc	15.8	ug/L			P	3.2	10.0	1	Optima A	14182A-W425142

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0350 Method Type: _____

Sample ID: W4F0350-03

Client ID: 14081

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: Total Recoverable

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1570000	ug/L		P	443	923	1	Optima A	14182A-W425142	
7440-43-9	Cadmium	448	ug/L		P	0.68	2.0	1	Optima A	14182A-W425142	
7440-70-2	Calcium	207000	ug/L		P	29.0	40.0	1	Optima A	14182A-W425142	
7439-95-4	Magnesium	255000	ug/L		P	90.0	200	1	Optima A	14182A-W425142	
7439-96-5	Manganese	4280	ug/L		P	1.3	4.0	1	THERMO3	14182A	
7439-98-7	Molybdenum	397	ug/L		P	2.7	8.0	1	Optima A	14182A-W425142	
7440-09-7	Potassium	78000	ug/L		P	170	500	1	Optima A	14182A-W425142	
7782-49-2	Selenium	57.0	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G07j00	
7440-23-5	Sodium	170000	ug/L		P	65.0	500	1	Optima A	14182A-W425142	
7440-62-2	Vanadium	4.8	ug/L	J	P	1.7	5.0	1	Optima A	14182A-W425142	
7440-66-6	Zinc	731	ug/L		P	3.2	10.0	1	Optima A	14182A-W425142	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: YES

Comments: ARTIFACTS: SEDIMENT

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0350 Method Type: _____

<u>Sample ID:</u> <u>W4F0350-05</u>	<u>Client ID:</u> <u>14085</u>
-------------------------------------	--------------------------------

<u>Contract:</u> _____	<u>Lab Code:</u> <u>SVL</u>	<u>Case No.:</u> _____	<u>SAS No.:</u> _____
------------------------	-----------------------------	------------------------	-----------------------

<u>Matrix:</u> <u>WATER</u>	<u>Date Received:</u> <u>6/17/2014</u>	<u>Level:</u> <u>LOW</u>
-----------------------------	----------------------------------------	--------------------------

<u>% Solids:</u> _____	<u>Total/Dissolved:</u> _____	<u>Total Recoverable</u> _____
------------------------	-------------------------------	--------------------------------

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	1480000	ug/L		P	443	923	1	Optima A	14182A-W425142	
7440-43-9	Cadmium	278	ug/L		P	0.68	2.0	1	Optima A	14182A-W425142	
7440-70-2	Calcium	288000	ug/L		P	29.0	40.0	1	Optima A	14182A-W425142	
7439-95-4	Magnesium	184000	ug/L		P	90.0	200	1	Optima A	14182A-W425142	
7439-96-5	Manganese	938	ug/L		P	1.3	4.0	1	THERMO3	14182A	
7439-98-7	Molybdenum	494	ug/L		P	2.7	8.0	1	Optima A	14182A-W425142	
7440-09-7	Potassium	107000	ug/L		P	170	500	1	Optima A	14182A-W425142	
7782-49-2	Selenium	351	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G07j00	
7440-23-5	Sodium	236000	ug/L		P	65.0	500	1	Optima A	14182A-W425142	
7440-62-2	Vanadium	26.4	ug/L		P	1.7	5.0	1	Optima A	14182A-W425142	
7440-66-6	Zinc	1210	ug/L		P	3.2	10.0	1	Optima A	14182A-W425142	

<u>Color Before:</u> <u>COLORLESS</u>	<u>Clarity Before:</u> <u>CLEAR</u>	<u>Texture:</u> _____
---------------------------------------	-------------------------------------	-----------------------

<u>Color After:</u> <u>COLORLESS</u>	<u>Clarity After:</u> <u>CLEAR</u>	<u>Artifacts:</u> _____
--------------------------------------	------------------------------------	-------------------------

Comments: _____

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0350 Method Type: _____

Sample ID: W4F0350-04

Client ID: 14087

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	896000	ug/L		P	443	923	1	Optima A	14182A-W425142	
7440-43-9	Cadmium	2.0	ug/L		P	0.68	2.0	1	Optima A	14182A-W425142	
7440-70-2	Calcium	163000	ug/L		P	29.0	40.0	1	Optima A	14182A-W425142	
7439-95-4	Magnesium	118000	ug/L		P	90.0	200	1	Optima A	14182A-W425142	
7439-96-5	Manganese	73.3	ug/L		P	1.3	4.0	1	THERMO3	14182A	
7439-98-7	Molybdenum	291	ug/L		P	2.7	8.0	1	Optima A	14182A-W425142	
7440-09-7	Potassium	19700	ug/L		P	170	500	1	Optima A	14182A-W425142	
7782-49-2	Selenium	409	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G07j00	
7440-23-5	Sodium	55400	ug/L		P	65.0	500	1	Optima A	14182A-W425142	
7440-62-2	Vanadium	8.1	ug/L		P	1.7	5.0	1	Optima A	14182A-W425142	
7440-66-6	Zinc	27.6	ug/L		P	3.2	10.0	1	Optima A	14182A-W425142	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0350 Method Type: _____

Sample ID: W4F0350-08

Client ID: 14090

Contract: _____ Lab Code: SVL Case No.: _____ SAS No.: _____

Matrix: WATER Date Received: 6/17/2014 Level: LOW

% Solids: _____ Total/Dissolved: _____ Total Recoverable _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	610000	ug/L		P	443	923	1	Optima A	14182A-W425142	
7440-43-9	Cadmium	10.8	ug/L		P	0.68	2.0	1	Optima A	14182A-W425142	
7440-70-2	Calcium	137000	ug/L		P	29.0	40.0	1	Optima A	14182A-W425142	
7439-95-4	Magnesium	65000	ug/L		P	90.0	200	1	Optima A	14182A-W425142	
7439-96-5	Manganese	1.3	ug/L	U	P	1.3	4.0	1	THERMO3	14182A	
7439-98-7	Molybdenum	39.1	ug/L		P	2.7	8.0	1	Optima A	14182A-W425142	
7440-09-7	Potassium	7700	ug/L		P	170	500	1	Optima A	14182A-W425142	
7782-49-2	Selenium	12.0	ug/L		MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G07j00	
7440-23-5	Sodium	52000	ug/L		P	65.0	500	1	Optima A	14182A-W425142	
7440-62-2	Vanadium	21.9	ug/L		P	1.7	5.0	1	Optima A	14182A-W425142	
7440-66-6	Zinc	28.5	ug/L		P	3.2	10.0	1	Optima A	14182A-W425142	

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0350 Method Type: _____

Sample ID: W4F0350-07

Client ID: 14092

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids:

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	755000	ug/L			P	443	923	1	Optima A	14182A-W425142
7440-43-9	Cadmium	0.90	ug/L	J		P	0.68	2.0	1	Optima A	14182A-W425142
7440-70-2	Calcium	127000	ug/L			P	29.0	40.0	1	Optima A	14182A-W425142
7439-95-4	Magnesium	106000	ug/L			P	90.0	200	1	Optima A	14182A-W425142
7439-96-5	Manganese	121	ug/L			P	1.3	4.0	1	THERMO3	14182A
7439-98-7	Molybdenum	11.0	ug/L			P	2.7	8.0	1	Optima A	14182A-W425142
7440-09-7	Potassium	9370	ug/L			P	170	500	1	Optima A	14182A-W425142
7782-49-2	Selenium	50.0	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G07j00
7440-23-5	Sodium	52600	ug/L			P	65.0	500	1	Optima A	14182A-W425142
7440-62-2	Vanadium	4.9	ug/L	J		P	1.7	5.0	1	Optima A	14182A-W425142
7440-66-6	Zinc	17.9	ug/L			P	3.2	10.0	1	Optima A	14182A-W425142

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments: _____

- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: GOLDER ASSOCIATES SDG No.: W4F0350 Method Type: _____

Sample ID: W4F0350-01

Client ID: 14104

Contract: _____

Lab Code: SVL

Case No.: _____

SAS No.: _____

Matrix: WATER

Date Received: 6/17/2014

Level: LOW

% Solids: _____

Total/Dissolved: _____

Total Recoverable: _____

CAS No.	Analyte	Concentration	Units	C	Qual	M	MDL	MRL	Dil'n	Instrument ID	Analytical Run
E-11778	Hardness	648000	ug/L			P	443	923	1	Optima A	14182A-W425142
7440-43-9	Cadmium	0.68	ug/L	U		P	0.68	2.0	1	Optima A	14182A-W425142
7440-70-2	Calcium	134000	ug/L			P	29.0	40.0	1	Optima A	14182A-W425142
7439-95-4	Magnesium	76200	ug/L			P	90.0	200	1	Optima A	14182A-W425142
7439-96-5	Manganese	1.3	ug/L	U		P	1.3	4.0	1	THERMO3	14182A
7439-98-7	Molybdenum	71.1	ug/L			P	2.7	8.0	1	Optima A	14182A-W425142
7440-09-7	Potassium	7070	ug/L			P	170	500	1	Optima A	14182A-W425142
7782-49-2	Selenium	24.0	ug/L			MS	0.52	2.0	1	AGILENT 7700 ICPMS	14G07j00
7440-23-5	Sodium	36100	ug/L			P	65.0	500	1	Optima A	14182A-W425142
7440-62-2	Vanadium	5.5	ug/L			P	1.7	5.0	1	Optima A	14182A-W425142
7440-66-6	Zinc	16.9	ug/L			P	3.2	10.0	1	Optima A	14182A-W425142

Color Before: COLORLESS

Clarity Before: CLEAR

Texture: _____

Color After: COLORLESS

Clarity After: CLEAR

Artifacts: _____

Comments: _____



51

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0350
Reported: 09-Jul-14 08:50

Client Sample ID: **14104**SVL Sample ID: **W4F0350-01 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 12-Jun-14 15:00
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 12:38	
EPA 353.2	Nitrate/Nitrite as N	6.73	mg/L	0.150	0.066	3	W426083	ARP	07/02/14 17:07	D2
SM 2320B	Total Alkalinity	463	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:12	
SM 2320B	Bicarbonate	463	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:12	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:12	
SM 2540 C	Total Diss. Solids	792	mg/L	10			W425191	JDM	06/18/14 15:55	
SM 4500-P-E	Phosphorus	0.114	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52	
Anions by Ion Chromatography										
EPA 300.0	Chloride	47.8	mg/L	5.00	1.18	25	W426174	AEG	06/26/14 18:23	D2,M3
EPA 300.0	Fluoride	0.51	mg/L	0.10	0.03		W426174	AEG	06/26/14 18:12	
EPA 300.0	Sulfate as SO ₄	175	mg/L	7.50	1.38	25	W426174	AEG	06/26/14 18:23	D2,M3

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



52

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0350

Reported: 09-Jul-14 08:50

Client Sample ID: **14080**SVL Sample ID: **W4F0350-02 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 10-Jun-14 13:10

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 12:39	
EPA 353.2	Nitrate/Nitrite as N	7.19	mg/L	0.150	0.066	3	W426083	ARP	07/02/14 17:09	D2
SM 2320B	Total Alkalinity	706	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:23	
SM 2320B	Bicarbonate	706	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:23	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:23	
SM 2540 C	Total Diss. Solids	1090	mg/L	10			W425133	AGF	06/17/14 16:50	
SM 4500-P-E	Phosphorus	0.088	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52	
Anions by Ion Chromatography										
EPA 300.0	Chloride	51.4	mg/L	5.00	1.18	25	W426174	AEW	06/26/14 20:08	D2
EPA 300.0	Fluoride	< 0.10	mg/L	0.10	0.03		W426174	AEW	06/26/14 19:58	
EPA 300.0	Sulfate as SO ₄	213	mg/L	7.50	1.38	25	W426174	AEW	06/26/14 20:08	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



53

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0350

Reported: 09-Jul-14 08:50

Client Sample ID: 14081

SVL Sample ID: W4F0350-03 (Ground Water)

Sample Report Page 1 of 1

Sampled: 10-Jun-14 16:00

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.344	mg/L	0.030	0.022		W426075	ARP	07/01/14 12:41	
EPA 353.2	Nitrate/Nitrite as N	14.7	mg/L	0.500	0.220	10	W426083	ARP	07/02/14 17:29	D2
SM 2320B	Total Alkalinity	255	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:43	
SM 2320B	Bicarbonate	255	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:43	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:43	
SM 2540 C	Total Diss. Solids	2420	mg/L	40			W425133	AGF	06/17/14 16:50	D1
SM 4500-P-E	Phosphorus	0.347	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52	
Anions by Ion Chromatography										
EPA 300.0	Chloride	467	mg/L	10.0	2.35	50	W426174	AEW	06/26/14 20:29	D2
EPA 300.0	Fluoride	3.04	mg/L	0.50	0.14	5	W426174	AEW	06/26/14 20:19	D1
EPA 300.0	Sulfate as SO ₄	1030	mg/L	15.0	2.75	50	W426174	AEW	06/26/14 20:29	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



54

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0350

Reported: 09-Jul-14 08:50

Client Sample ID: **14087**SVL Sample ID: **W4F0350-04 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 11-Jun-14 13:30

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	0.345	mg/L	0.060	0.044	2	W426075	ARP	07/01/14 12:58	D2
EPA 353.2	Nitrate/Nitrite as N	5.14	mg/L	0.100	0.044	2	W426083	ARP	07/02/14 17:12	D2
SM 2320B	Total Alkalinity	689	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:52	
SM 2320B	Bicarbonate	689	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:52	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 10:52	
SM 2540 C	Total Diss. Solids	1090	mg/L	10			W425191	JDM	06/18/14 15:55	
SM 4500-P-E	Phosphorus	0.505	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52	

Anions by Ion Chromatography

EPA 300.0	Chloride	1.69 122.1	mg/L	0.20	0.05		W426174	AEW	06/26/14 20:40	
EPA 300.0	Fluoride	2.02	mg/L	0.10	0.03		W426174	AEW	06/26/14 20:40	
EPA 300.0	Sulfate as SO ₄	150	mg/L	7.50	1.38	25	W426174	AEW	06/26/14 20:50	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



55

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0350

Reported: 09-Jul-14 08:50

Client Sample ID: **14085**

Sampled: 11-Jun-14 11:50

SVL Sample ID: **W4F0350-05 (Ground Water)**

Received: 17-Jun-14

Sample Report Page 1 of 1

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	6.50	mg/L	0.300	0.220	10	W426075	ARP	07/01/14 12:43	D2,M3
EPA 353.2	Nitrate/Nitrite as N	5.56	mg/L	0.500	0.220	10	W426083	ARP	07/02/14 17:30	D2
SM 2320B	Total Alkalinity	199	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:07	
SM 2320B	Bicarbonate	199	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:07	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:07	
SM 2540 C	Total Diss. Solids	2550	mg/L	40			W425191	JDM	06/18/14 15:55	D1
SM 4500-P-E	Phosphorus	1.03	mg/L	0.020	0.007	2	W427065	SM	07/01/14 16:52	D2
Anions by Ion Chromatography										
EPA 300.0	Chloride	381	mg/L	20.0	4.70	100	W426174	AEG	06/26/14 21:11	D2
EPA 300.0	Fluoride	3.80	mg/L	1.00	0.27	10	W426174	AEG	06/26/14 21:01	D1
EPA 300.0	Sulfate as SO ₄	1370	mg/L	30.0	5.50	100	W426174	AEG	06/26/14 21:11	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



56

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0350

Reported: 09-Jul-14 08:50

Client Sample ID: **14075**SVL Sample ID: **W4F0350-06 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 10-Jun-14 09:50

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 12:51
EPA 353.2	Nitrate/Nitrite as N	1.18	mg/L	0.050	0.022		W426083	ARP	07/02/14 17:14
SM 2320B	Total Alkalinity	826	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:14
SM 2320B	Bicarbonate	826	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:14
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:14
SM 2540 C	Total Diss. Solids	824	mg/L	10			W425133	AGF	06/17/14 16:50
SM 4500-P-E	Phosphorus	0.198	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52

Anions by Ion Chromatography

EPA 300.0	Chloride	14.1	mg/L	5.00	1.18	25	W426174	AEW	06/26/14 21:33	D2
EPA 300.0	Fluoride	0.53	mg/L	0.10	0.03		W426174	AEW	06/26/14 21:22	
EPA 300.0	Sulfate as SO ₄	56.7	mg/L	7.50	1.38	25	W426174	AEW	06/26/14 21:33	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



57

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0350
Reported: 09-Jul-14 08:50

Client Sample ID: **14092**SVL Sample ID: **W4F0350-07 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 11-Jun-14 17:00

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 13:47	
EPA 353.2	Nitrate/Nitrite as N	6.46	mg/L	0.150	0.066	3	W426083	ARP	07/02/14 17:16	D2
SM 2320B	Total Alkalinity	663	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:31	
SM 2320B	Bicarbonate	663	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:31	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:31	
SM 2540 C	Total Diss. Solids	882	mg/L	10			W425191	JDM	06/18/14 15:55	
SM 4500-P-E	Phosphorus	0.256	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52	
Anions by Ion Chromatography										
EPA 300.0	Chloride	21.3	mg/L	5.00	1.18	25	W426174	AEW	06/26/14 22:15	
EPA 300.0	Fluoride	0.64	mg/L	0.10	0.03		W426174	AEW	06/26/14 22:04	
EPA 300.0	Sulfate as SO ₄	163	mg/L	7.50	1.38	25	W426174	AEW	06/26/14 22:15	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



58

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002
Work Order: W4F0350
Reported: 09-Jul-14 08:50

Client Sample ID: **14090**SVL Sample ID: **W4F0350-08 (Ground Water)**

Sample Report Page 1 of 1

Sampled: 11-Jun-14 15:20
Received: 17-Jun-14
Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
--------	---------	--------	-------	----	-----	----------	-------	---------	----------	-------

Classical Chemistry Parameters

EPA 350.1	Ammonia as N	< 0.030	mg/L	0.030	0.022		W426075	ARP	07/01/14 13:11
EPA 353.2	Nitrate/Nitrite as N	4.19	mg/L	0.050	0.022		W426083	ARP	07/02/14 17:17
SM 2320B	Total Alkalinity	455	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:45
SM 2320B	Bicarbonate	455	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:45
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:45
SM 2540 C	Total Diss. Solids	742	mg/L	10			W425191	JDM	06/18/14 15:55
SM 4500-P-E	Phosphorus	0.365	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52

Anions by Ion Chromatography

EPA 300.0	Chloride	47.2	mg/L	5.00	1.18	25	W426174	AEW	06/26/14 22:36	D2
EPA 300.0	Fluoride	0.45	mg/L	0.10	0.03		W426174	AEW	06/26/14 22:25	
EPA 300.0	Sulfate as SO ₄	155	mg/L	7.50	1.38	25	W426174	AEW	06/26/14 22:36	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director



59

One Government Gulch - PO Box 929 Kellogg ID 83837-0929

(208) 784-1258

Fax (208) 783-0891

Golder Associates (WA)
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052-3333

Project Name: Monsanto Level 3 / 913-1101-002.002

Work Order: W4F0350

Reported: 09-Jul-14 08:50

Client Sample ID: 14079

SVL Sample ID: W4F0350-09 (Ground Water)

Sample Report Page 1 of 1

Sampled: 10-Jun-14 12:30

Received: 17-Jun-14

Sampled By: JJ

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Classical Chemistry Parameters										
EPA 350.1	Ammonia as N	0.043	mg/L	0.030	0.022		W426075	ARP	07/01/14 12:55	
EPA 353.2	Nitrate/Nitrite as N	2.37	mg/L	0.050	0.022		W426083	ARP	07/02/14 17:19	
SM 2320B	Total Alkalinity	922	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:56	
SM 2320B	Bicarbonate	922	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:56	
SM 2320B	Carbonate	< 1.0	mg/L as CaCO ₃	1.0			W425173	DKS	06/19/14 11:56	
SM 2540 C	Total Diss. Solids	1100	mg/L	10			W425133	AGF	06/17/14 16:50	
SM 4500-P-E	Phosphorus	0.189	mg/L	0.010	0.003		W427065	SM	07/01/14 16:52	
Anions by Ion Chromatography										
EPA 300.0	Chloride	40.2	mg/L	5.00	1.18	25	W426174	AEW	06/26/14 22:57	D2
EPA 300.0	Fluoride	0.13	mg/L	0.10	0.03		W426174	AEW	06/26/14 22:46	
EPA 300.0	Sulfate as SO ₄	159	mg/L	7.50	1.38	25	W426174	AEW	06/26/14 22:57	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

Kirby Gray
Technical Director

IAS EnviroChem
 3314 Pole Line Rd. • Pocatello, ID 83201
 Phone: (208) 237-3300 • Fax: (208) 237-3336
 email: iasec3308@iasenvirochem.com • www.iasenvirochem.com

Golder Associates Inc
 Derek Holom
 18300 NE Union Hill Rd Ste 200
 Redmond, WA 98052

Date Submitted: 06/16/2014
 Date Reported: 07/08/2014

Certificate of Analysis

Sample Description: 14070
 Lab Tracking #: I406143-01
 Sampling Date/Time: 06/08/14 16:05

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyzed</u>	<u>Analyst</u>
Alkalinity, Total as CaCO ₃	500	mg/L	SM2320B	06/20/2014	MAD
Ammonia as N	< 0.05	mg/L	4500 NH3 G	06/24/2014	MAD
Chloride	164	mg/L	300.0 -	06/18/2014	CCH
Fluoride	1.6	mg/L	300.0 -	06/18/2014	CCH
Nitrate/Nitrite as N	9.24	mg/L	300.0 r	06/18/2014	CCH
Sulfate	495	mg/L	300.0 -	06/17/2014	CCH
Total Cadmium	0.003	mg/L	200.8	07/08/2014	RP
Total Calcium	221.20	mg/L	200.8	07/08/2014	RP
Total Dissolved Solids	1700	mg/L	2540C /	06/18/2014	TL
Total Hardness as CaCO ₃	1175	mg/L	200.8 CALC	07/08/2014	RP
Total Magnesium	151.50	mg/L	200.8	07/08/2014	RP
Total Manganese	< 0.001	mg/L	200.8	07/08/2014	RP
Total Molybdenum	0.040	mg/L	200.8	07/08/2014	RP
Total Phosphorus as P	0.22	mg/L	365.3 r	06/18/2014	MAD
Total Potassium	20.28	mg/L	200.8	07/08/2014	RP
Total Selenium	0.355	mg/L	200.8	07/08/2014	RP
Total Sodium	97.36	mg/L	200.8	07/08/2014	RP
Total Vanadium	0.005	mg/L	200.8	07/08/2014	RP
Total Zinc	0.081	mg/L	200.8	07/08/2014	RP

JSL
 9/19/2014

IAS EnviroChem

3314 Pole Line Rd. • Pocatello, ID 83201
Phone: (208) 237-3300 • Fax: (208) 237-3336
email: iasec3308@iasenvirochem.com • www.iasenvirochem.com

Golder Associates Inc
Derek Holom
18300 NE Union Hill Rd Ste 200
Redmond, WA 98052

Date Submitted: 06/16/2014
Date Reported: 07/08/2014

Certificate of Analysis

Sample Description: 14068
Lab Tracking #: I406143-02
Sampling Date/Time: 06/08/14 15:20

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyzed</u>	<u>Analyst</u>
Alkalinity, Total as CaCO ₃	660	mg/L	SM2320B	06/20/2014	MAD
Ammonia as N	< 0.05	mg/L	4500 NH3 G	06/24/2014	MAD
Chloride	37	mg/L	300.0	06/18/2014	CCH
Fluoride	0.3	mg/L	300.0	06/18/2014	CCH
Nitrate/Nitrite as N	3.45	mg/L	300.0	06/18/2014	CCH
Sulfate	190	mg/L	300.0	06/18/2014	CCH
Total Cadmium	< 0.001	mg/L	200.8	07/08/2014	RP
Total Calcium	167.10	mg/L	200.8	07/08/2014	RP
Total Dissolved Solids	970	mg/L	2540C	06/18/2014	TL
Total Hardness as CaCO ₃	827	mg/L	200.8 CALC	07/08/2014	RP
Total Magnesium	99.68	mg/L	200.8	07/08/2014	RP
Total Manganese	< 0.001	mg/L	200.8	07/08/2014	RP
Total Molybdenum	0.002	mg/L	200.8	07/08/2014	RP
Total Phosphorus as P	0.14	mg/L	365.3	06/18/2014	MAD
Total Potassium	8.89	mg/L	200.8	07/08/2014	RP
Total Selenium	0.029	mg/L	200.8	07/08/2014	RP
Total Sodium	35.06	mg/L	200.8	07/08/2014	RP
Total Vanadium	0.002	mg/L	200.8	07/08/2014	RP
Total Zinc	0.025	mg/L	200.8	07/08/2014	RP

IAS EnviroChem

3314 Pole Line Rd. • Pocatello, ID 83201
 Phone: (208) 237-3300 • Fax: (208) 237-3336
 email: iasec3308@iasenvirochem.com • www.iasenvirochem.com

Golder Associates Inc
Derek Holom
18300 NE Union Hill Rd Ste 200
Redmond, WA 98052

Date Submitted: 06/16/2014
Date Reported: 07/08/2014

Certificate of Analysis

Sample Description: 14117
Lab Tracking #: I406143-03
Sampling Date/Time: 06/13/14 16:00

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyzed</u>	<u>Analyst</u>
Alkalinity, Total as CaCO ₃	850	mg/L	SM2320B	06/20/2014	MAD
Ammonia as N	0.07	mg/L	4500 NH ₃ G	06/24/2014	MAD
Chloride	45	mg/L	300.0	06/18/2014	CCH
Dissolved Cadmium	< 0.001	mg/L	200.8	07/07/2014	RP
Dissolved Calcium	126.90	mg/L	200.8	07/07/2014	RP
Dissolved Magnesium	134.10	mg/L	200.8	07/07/2014	RP
Dissolved Manganese	0.122	mg/L	200.8	07/07/2014	RP
Dissolved Molybdenum	0.011	mg/L	200.8	07/07/2014	RP
Dissolved Potassium	12.59	mg/L	200.8	07/07/2014	RP
Dissolved Selenium	0.033	mg/L	200.8	07/07/2014	RP
Dissolved Sodium	51.59	mg/L	200.8	07/07/2014	RP
Dissolved Vanadium	0.007	mg/L	200.8	07/07/2014	RP
Dissolved Zinc	0.044	mg/L	200.8	07/07/2014	RP
Fluoride	0.5 ✓	mg/L	300.0	06/18/2014	CCH
Nitrate/Nitrite as N	0.88 ✓	mg/L	300.0	06/18/2014	CCH
Sulfate	87	mg/L	300.0	06/18/2014	CCH
Total Cadmium	< 0.001	mg/L	200.8	07/08/2014	RP
Total Calcium	134.50	mg/L	200.8	07/08/2014	RP
Total Dissolved Solids	994	mg/L	2540C	06/18/2014	TL
Total Hardness as CaCO ₃	882	mg/L	200.8 CALC	07/08/2014	RP
Total Magnesium	132.90	mg/L	200.8	07/08/2014	RP
Total Manganese	0.123	mg/L	200.8	07/08/2014	RP
Total Molybdenum	0.012	mg/L	200.8	07/08/2014	RP
Total Phosphorus as P	0.15	mg/L	365.3	06/18/2014	MAD
Total Potassium	13.15	mg/L	200.8	07/08/2014	RP
Total Selenium	0.033	mg/L	200.8	07/08/2014	RP
Total Sodium	54.09	mg/L	200.8	07/08/2014	RP
Total Vanadium	0.004	mg/L	200.8	07/08/2014	RP
Total Zinc	0.023	mg/L	200.8	07/08/2014	RP

JSL
9/19/2014

IAS EnviroChem
 3314 Pole Line Rd. • Pocatello, ID 83201
 Phone: (208) 237-3300 • Fax: (208) 237-3336
 email: iasec3308@iasenvirochem.com • www.iasenvirochem.com

Golder Associates Inc
 Derek Holom
 18300 NE Union Hill Rd Ste 200
 Redmond, WA 98052

Date Submitted: 06/16/2014
 Date Reported: 07/08/2014

Certificate of Analysis

Sample Description: 14041
 Lab Tracking #: I406143-04
 Sampling Date/Time: 06/08/14 10:15

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyzed</u>	<u>Analyst</u>
Alkalinity, Total as CaCO ₃	370 X	mg/L	SM2320B	06/20/2014	MAD
Ammonia as N	2.81 X	mg/L	4500 NH ₃ G	06/24/2014	MAD
Chloride	25	mg/L	300.0	06/18/2014	CCH
Fluoride	0.2	mg/L	300.0	06/18/2014	CCH
Nitrate/Nitrite as N	5.93 J	mg/L	300.0	06/18/2014	CCH
Sulfate	86	mg/L	300.0	06/18/2014	CCH
Total Cadmium	<0.001	mg/L	200.8	07/08/2014	RP
Total Calcium	105.60	mg/L	200.8	07/08/2014	RP
Total Dissolved Solids	556 J	mg/L	2540C	06/18/2014	TL
Total Hardness as CaCO ₃	425	mg/L	200.8 CALC	07/08/2014	RP
Total Magnesium	39.19	mg/L	200.8	07/08/2014	RP
Total Manganese	0.018	mg/L	200.8	07/08/2014	RP
Total Molybdenum	0.370	mg/L	200.8	07/08/2014	RP
Total Phosphorus as P	0.53	mg/L	365.3	06/18/2014	MAD
Total Potassium	5.94	mg/L	200.8	07/08/2014	RP
Total Selenium	0.001	mg/L	200.8	07/08/2014	RP
Total Sodium	40.55	mg/L	200.8	07/08/2014	RP
Total Vanadium	0.688	mg/L	200.8	07/08/2014	RP
Total Zinc	0.001	mg/L	200.8	07/08/2014	RP

JSt 9/19/2014

IAS EnviroChem
 3314 Pole Line Rd. • Pocatello, ID 83201
 Phone: (208) 237-3300 • Fax: (208) 237-3336
 email: iasec3308@iasenvirochem.com • www.iasenvirochem.com

Golder Associates Inc
 Derek Holom
 18300 NE Union Hill Rd Ste 200
 Redmond, WA 98052

Date Submitted: 06/16/2014
 Date Reported: 07/08/2014

Certificate of Analysis

Sample Description: 14061
 Lab Tracking #: I406143-05
 Sampling Date/Time: 06/08/14 12:00

Analyte	Result	Units	Method	Analyzed	Analyst
Alkalinity, Total as CaCO ₃	410	mg/L	SM2320B	06/20/2014	MAD
Ammonia as N	< 0.05	mg/L	4500 NH ₃ G	06/24/2014	MAD
Chloride	12	mg/L	300.0	06/18/2014	CCH
Fluoride	0.2	mg/L	300.0	06/18/2014	CCH
Nitrate/Nitrite as N	1.95 ✓	mg/L	300.0	06/18/2014	CCH
Sulfate	36	mg/L	300.0	06/18/2014	CCH
Total Cadmium	< 0.001	mg/L	200.8	07/08/2014	RP
Total Calcium	113.90	mg/L	200.8	07/08/2014	RP
Total Dissolved Solids	484 ✓	mg/L	2540C	06/18/2014	TL
Total Hardness as CaCO ₃	447	mg/L	200.8 CALC	07/08/2014	RP
Total Magnesium	39.59	mg/L	200.8	07/08/2014	RP
Total Manganese	0.004	mg/L	200.8	07/08/2014	RP
Total Molybdenum	0.026	mg/L	200.8	07/08/2014	RP
Total Phosphorus as P	0.17	mg/L	365.3	06/18/2014	MAD
Total Potassium	2.32	mg/L	200.8	07/08/2014	RP
Total Selenium	0.002	mg/L	200.8	07/08/2014	RP
Total Sodium	13.11	mg/L	200.8	07/08/2014	RP
Total Vanadium	0.391	mg/L	200.8	07/08/2014	RP
Total Zinc	0.008	mg/L	200.8	07/08/2014	RP

JSL
 7/11/2014

IAS EnviroChem
 3314 Pole Line Rd. • Pocatello, ID 83201
 Phone: (208) 237-3300 • Fax: (208) 237-3336
 email: iasec3308@iasenvirochem.com • www.iasenvirochem.com

Golder Associates Inc
Derek Holom
18300 NE Union Hill Rd Ste 200
Redmond, WA 98052

Date Submitted: 06/16/2014
Date Reported: 07/08/2014

Certificate of Analysis

Sample Description: 14094
Lab Tracking #: I406143-06
Sampling Date/Time: 06/12/14 08:40

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyzed</u>	<u>Analyst</u>
Alkalinity, Total as CaCO ₃	610	mg/L	SM2320B	06/20/2014	MAD
Ammonia as N	< 0.05	mg/L	4500 NH ₃ G	06/24/2014	MAD
Chloride	118 <i>X</i>	mg/L	300.0	06/18/2014	CCH
Dissolved Cadmium	0.015	mg/L	200.8	07/07/2014	RP
Dissolved Calcium	156.70	mg/L	200.8	07/07/2014	RP
Dissolved Magnesium	145.20	mg/L	200.8	07/07/2014	RP
Dissolved Manganese	< 0.001	mg/L	200.8	07/07/2014	RP
Dissolved Molybdenum	0.050	mg/L	200.8	07/07/2014	RP
Dissolved Potassium	21.40	mg/L	200.8	07/07/2014	RP
Dissolved Selenium	0.318	mg/L	200.8	07/07/2014	RP
Dissolved Sodium	81.09	mg/L	200.8	07/07/2014	RP
Dissolved Vanadium	0.015	mg/L	200.8	07/07/2014	RP
Dissolved Zinc	0.220	mg/L	200.8	07/07/2014	RP
Fluoride	3.5	mg/L	300.0	06/18/2014	CCH
Nitrate/Nitrite as N	5.63 <i>J</i>	mg/L	300.0	06/18/2014	CCH
Sulfate	314 <i>X</i>	mg/L	300.0	06/18/2014	CCH
Total Cadmium	0.015	mg/L	200.8	07/08/2014	RP
Total Calcium	168.10	mg/L	200.8	07/08/2014	RP
Total Dissolved Solids	1362	mg/L	2540C	06/18/2014	TL
Total Hardness as CaCO ₃	1041	mg/L	200.8 CALC	07/08/2014	RP
Total Magnesium	151.20	mg/L	200.8	07/08/2014	RP
Total Manganese	< 0.001	mg/L	200.8	07/08/2014	RP
Total Molybdenum	0.054	mg/L	200.8	07/08/2014	RP
Total Phosphorus as P	0.35	mg/L	365.3	06/18/2014	MAD
Total Potassium	22.57	mg/L	200.8	07/08/2014	RP
Total Selenium	0.320	mg/L	200.8	07/08/2014	RP
Total Sodium	84.88	mg/L	200.8	07/08/2014	RP
Total Vanadium	0.016	mg/L	200.8	07/08/2014	RP
Total Zinc	0.225	mg/L	200.8	07/08/2014	RP

151
9/19/2014

IAS EnviroChem

3314 Pole Line Rd. • Pocatello, ID 83201
Phone: (208) 237-3300 • Fax: (208) 237-3336
email: iasec3308@iasenvirochem.com • www.iasenvirochem.com

Golder Associates Inc
Derek Holom
18300 NE Union Hill Rd Ste 200
Redmond, WA 98052

Date Submitted: 06/16/2014
Date Reported: 07/08/2014

Certificate of Analysis

Sample Description: 14077
Lab Tracking #: I406143-07
Sampling Date/Time: 06/16/14 10:30

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Method</u>	<u>Analyzed</u>	<u>Analyst</u>
Alkalinity, Total as CaCO ₃	400	mg/L	SM2320B	06/20/2014	MAD
Ammonia as N	2.47	mg/L	4500 NH ₃ G	06/24/2014	MAD
Chloride	30	mg/L	300.0	06/17/2014	CCH
Fluoride	0.2	mg/L	300.0	06/17/2014	CCH
Nitrate/Nitrite as N	7.66 <i>AS</i>	mg/L	300.0	06/17/2014	CCH
Sulfate	93	mg/L	300.0	06/17/2014	CCH
Total Cadmium	< 0.001	mg/L	200.8	07/08/2014	RP
Total Calcium	108.60	mg/L	200.8	07/08/2014	RP
Total Dissolved Solids	584	mg/L	2540C	06/18/2014	TL
Total Hardness as CaCO ₃	443	mg/L	200.8 CALC	07/08/2014	RP
Total Magnesium	41.87	mg/L	200.8	07/08/2014	RP
Total Manganese	0.012	mg/L	200.8	07/08/2014	RP
Total Molybdenum	0.298	mg/L	200.8	07/08/2014	RP
Total Phosphorus as P	0.38	mg/L	365.3	06/18/2014	MAD
Total Potassium	5.80	mg/L	200.8	07/08/2014	RP
Total Selenium	0.004	mg/L	200.8	07/08/2014	RP
Total Sodium	40.96	mg/L	200.8	07/08/2014	RP
Total Vanadium	0.253	mg/L	200.8	07/08/2014	RP
Total Zinc	< 0.001	mg/L	200.8	07/08/2014	RP

JG
7/11/2014

G. Ryan Pattie

G. Ryan Pattie
Laboratory Director

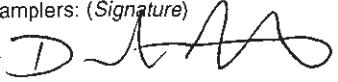
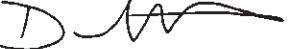
ND = Not Detected

All solids are reported on a dry weight basis unless otherwise noted.

ATTACHMENT 3
LABORATORY NARRATIVE AND CHAIN-OF-CUSTODY DOCUMENTATION

Chain of Custody Record

W4FO185

Project No.		Site/Location					Amount/Preservative HNO3 H2SO4 UNPRES.	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)	
913-1101-002.002		MONSANTO									
Samplers: (Signature)											
 DEREK HOWM											
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers					
6/7/14	1615	GEMB	GW		140 53	3	1	1	1	13286	MONSANTO ANNUAL ANALYSIS
6/3/14	1525				140 30						
6/8/14	1030				140 57						
6/8/14	1215				140 60						
6/3/14	1640				140-23						
6/7/14	1245				140 51						FIELD FILTERED
6/7/14	1530				140 52						FIELD FILTERED
6/7/14	1645		↓	↓	140 54	↓	↓	↓	↓		
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)	
		6/9/14 1300		C. Flores, SVL 6/10/14 13:00							
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)	
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)			

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/10/14

By: CR Sevy

SVL Work No: W4F0185

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				GOLDER
2	Date and time of receipt at lab	✓				6/10/14 13:00
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 3.2 °C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				GOOD
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt				✓	No
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)				✓	
19	Shipper's air bill	✓				

V- Verified

VC- Verified Corrections Made

NV-Not Verified

NA- Not Applicable

Additional Comments:

Chain of Custody Record

WYFO187

5.6

Project No.	Site/Location					Amount/Preservative HNO3 H2SO4 UNPRESERVED	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)
913-101-002-a2	MONSANTO								
Samplers: (Signature)									
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers			
6/6/14	1730	GRAB	GW		14047	3		13288	MONSANTO ANALYTIC ANALYSIS
6/6/14	1445				14045				
6/6/14	1800				14048				
6/6/14	0800				14037				
6/6/14	1000				14039				
6/6/14	1015				14040				
6/6/14	0930				14038				
6/6/14	1100	↓	↓		14042	↓			
Relinquished by: (Signature/Firm)		Date/Time	Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time	Received by: (Signature/Firm)	
		6/9/14 1300	SLL						
Relinquished by: (Signature/Firm)		Date/Time	Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time	Received by: (Signature/Firm)	
Relinquished by: (Signature/Firm)		Date/Time	Received by: (Signature/Firm)		Date/Time	Remarks (attachments if necessary)			
IP3 1211/73200									

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/10/14

By: DR Seay

SVL Work No: W4F0187

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				Golder Associates (LVA)
2	Date and time of receipt at lab	✓				6-10-14 13:30
3	Received by	✓				mark duce
4	Temperature blank or cooler temperature	✓				Temp. 5.6 °C.
5	Were the sample(s) received on ice	✓				yes
6	Custody tape/bottle seals	✓				yes
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				Good
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt				✓	
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)				✓	
19	Shipper's air bill	✓				

V- Verified VC- Verified Corrections Made

NV- Not Verified NA- Not Applicable

Additional Comments:

Chain of Custody Record

WJ4F0188

Project No.		Site/Location					Amount/Presentative	HNO ₃	H ₂ SO ₄	UNPRES	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)
913-1101-002.002		MONSANTO											
Samplers: (Signature)		<i>D-A-N</i>											
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers							
*	6/4/14	1200	GRAB	GW	TW58	1					13289	TW-58 TSS & TOC	
	6/4/14	1015			14026	3						MONSANTO ANNUN. ANALYSIS	
	6/4/14	15:5			14029	1							
	6/5/14	1630			14036	1							
	6/5/14	1605			14035	1							
	6/4/14	1800			14030	1							
	6/4/14	1500			14028	1							
	6/6/14	1400			14044	1							
	6/6/14	1600			14046	1							
	6/6/14	1125	↓	↓	14043	1	↓						
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)	
<i>D-A-N</i>			6/9/14 1300		<i>CD</i> 6/10/14 13:20 <i>SVL</i>								
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)	
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)				
									<i>* SVL WILL PRESERVE A PORTION OF SAMPLE FOR TOC ANALYSIS. CF 6/10/14</i>				
IP3 1211/73200													

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/10/14

By: CR Sevey

SVL Work No: W4FO188

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				GOLDER 6/10/14 13:20
2	Date and time of receipt at lab	✓				
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 5.5 °C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				GOOD
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt	✓				CE 6/10/14 NO SVL PRESERVED FOR TOC ANALYSIS
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)					✓
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)					✓
19	Shipper's air bill	✓				

V- Verified

VC- Verified Corrections Made

NV-Not Verified

NA- Not Applicable

Additional Comments: _____

Chain of Custody Record

W4FO190

5.0^{cu}

Project No.		Site/Location				Amount/Preservative 1LNO3 H2SO4 UNPRESERVED	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)	
913-1101-002.002		MONSANTO								
Samplers: (Signature) <i>Derek Holom</i>										
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers				
	6/3/14	1315	GRAB	GW	14019	3	1	1	13285	MONSANTO SAMPLING LIST
	6/7/14	0915			14049	1				Field FILTERED
	6/8/14	0925			14055	1				
	6/8/14	1000			14056	1				
	6/8/14	1050			14058	1				
	6/8/14	1200			14059	1				
	6/9/14	0930			14072	1				
	6/9/14	1040	↓	↓	14073	1	↓	↓	↓	
	6/7/14	1030	↓	↓	14050	1	↓	↓	↓	Field FILTERED
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)
<i>Derek Holom</i>		6/9/14 1300		<i>SLC 6-10-14 13:55</i>						
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)		



SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/10/14By: CPSevySVL Work No: L4F0190

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				Golder Associates (WA)
2	Date and time of receipt at lab	✓				6-10-14 13:55
3	Received by	✓				mark Dice
4	Temperature blank or cooler temperature	✓				Temp. 5.0 °C.
5	Were the sample(s) received on ice	✓				yes
6	Custody tape/bottle seals	✓				yes
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				Good
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt				✓	
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)				✓	
19	Shipper's air bill	✓				

V- Verified VC- Verified Corrections Made

NV- Not Verified NA- Not Applicable

Additional Comments:

Chain of Custody Record

W4FO192

Project No.		Site/Location				Amount/Preservative H2O3 H2SO4 Urines	Seal/Number	Seal/Intact? (Yes or No)	Remarks (with initials)	
913-1101-002-002		MONSANTO								
Samplers: (Signature)							D A			
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers				
6/9/14	1315	GRAB	GW	14062	3	1 1 1			13290	MONSANTO ANNUAL ANALYSIS
	1315			14063		1 1 1				
	1400			14064		1 1 1				
	1415			14065		1 1 1				
	1430			14066		1 1 1				
	1520			14067		1 1 1				
	1605			14069		1 1 1				
	1700			14071		1 1 1				
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)
D A		6/9/14 1300		6/10/14 1400 Golder Associates, GVL						
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)		



5.6°C

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance:

6/10/14

By:

CR Sevy

SVL Work No:

W4F0195

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				GOLDER
2	Date and time of receipt at lab	✓				6/10/14 14:00
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 5.6 °C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				GOOD
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt				✓ NO	
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)				✓	
19	Shipper's air bill	✓				

V- Verified

VC- Verified Corrections Made

NV-Not Verified

NA- Not Applicable

Additional Comments:

Chain of Custody Record

W4FO193

4,4^{oc}

Project No.		Site/Location					Amount/Preservative Hg 103 H2SO4 Un 1063	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)	
913-1101-002.002		MONSANTO									
Samplers: (Signature) <i>Derek Holom</i>											
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers					
6/5/14	1010	GRAB	GW		14032	3	1	1	1	13287	MONSANTO ANNUAL ANALYSIS
6/5/14	1220				14033		1	1	1		
6/5/14	0900				14031		1	1	1		
6/5/14	1415				14034		1	1	1		
6/3/14	1720				14024		1	1	1		
6/3/14	1630				14022		1	1	1		
6/3/14	1605				14021		1	1	1		
6/4/14	1000				14025		1	1	1		
6/4/14	1200	↓	↓		14027	↓	↓	↓	↓		
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)
<i>D. Holom</i>			6/9/14 1300		JAN SVL C-10.14 14:10						
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)		

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 10/10/14By: OP SevySVL Work No: W4FO193

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				Golder Associates (WA)
2	Date and time of receipt at lab	✓				6-10-14 14:10
3	Received by	✓				Mark Duce
4	Temperature blank or cooler temperature	✓				Temp. 4.4 °C.
5	Were the sample(s) received on ice	✓				Yes
6	Custody tape/bottle seals	✓				Yes
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				Good
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt				✓	
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)				✓	
19	Shipper's air bill	✓				

V- Verified VC- Verified Corrections Made

NV- Not Verified NA- Not Applicable

Additional Comments:

Chain of Custody Record

W4F0343

Project No.		Site/Location					Amount/Preservative H No 3 46 SOY UNPRESERVED)	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)	
113-1101-002.002		MONSANTO									
Samplers: (Signature)									<i>Jeremy Jones</i>		
Station Number	Date	Time	Sample Type	Media	Sample Identification		Number of Containers				
6/13/14	1345	GRAB	SW		14112		4	2	1	1	
6/13/14	1415	GRAB	SW		14113		4	2	1	1	
6/13/14	1500	GRAB	SW		14114		4	2	1	1	
6/13/14	1530	GRAB	SW		14115		4	2	1	1	
6/13/14	1600	GRAB	SW		14116		4	2	1	1	
6/13/14	1600	GRAB	SW		14117		4	2	1	1	
6/13/14	1630	GRAB	SW		14118		4	2	1	1	
									NO-SAMPLE		
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)
<i>DT</i>			6/16/14 1630		<i>C. Charles SVL</i> 6/17/13 13:00						
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)		



SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/17/14

By: DR Seeley

SVL Work No: W4F0343

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				GOLDFER
2	Date and time of receipt at lab	✓				6/17/14 13:00
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 24 °C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				GOOD
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt				✓	NO
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)					
19	Shipper's air bill	✓				

V- Verified VC- Verified Corrections Made

NV- Not Verified NA- Not Applicable

Additional Comments:

Chain of Custody Record

W4FO345

Project No.		Site/Location										 Golder Associates	
113-1101-002.002		MONSANTO											
Samplers: (Signature)													
Jeremy Jones													
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers	Amount/Preservative	H/N33	1b SOY	UNREFINED	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)
	6/13/14	1000	GRAB	SW	14105	4	2	1	1		13295		MONSANTO ANNUAL ANALYSIS
	6/13/14	1030	GRAB	SW	14106	4	2	1	1				
	6/13/14	1200	GRAB	SW	14107	4	2	1	1				
	6/13/14	1215	GRAB	SW	14108	4	2	1	1				
	6/13/14	1230	GRAB	SW	14109	4	2	1	1				
	6/13/14	1345	GRAB	SW	14110	4	2	1	1				
	6/13/14	1250	GRAB	SW	14111	4	2	1	1				
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)	
			6/16/14 1630		C. Jones, SVL 6/17/14 11:10								
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)	
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)				

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/17/14

By: CD Seay

SVL Work No: W4FO345

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				GOLDER
2	Date and time of receipt at lab	✓				6/17/14 H10
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 5.8 °C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				GOOD
8	Sample numbers/IDs agree with COC					
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt					✓ NO
13	Type of container for each sample / volume received					
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)					
19	Shipper's air bill	✓				

V- Verified VC- Verified Corrections Made

NV-Not Verified NA- Not Applicable

Additional Comments:

Chain of Custody Record

W4F0346

Project No.		Site/Location					Amount/Preservative 1/4 oz 1/2 gal Unspecified)					Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)
913-1101-002.002		MONSANTO												
Samplers: (Signature)										Jenny Jones				
Station Number	Date	Time	Sample Type	Media	Sample Identification		Number of Containers	2	1	1	13299	MONSANTO water Analysis		
6/12/14	1315	GRAB	SW		14101		4							
6/12/14	0920	GRAB	SW		14095		4	2	1	1				
6/12/14	1030	GRAB	SW		14097		4	2	1	1				
6/12/14	0940	GRAB	SW		14096		4	2	1	1				
6/12/14	1100	GRAB	SW		14098		4	2	1	1				
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)			Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)	
			6/16/14 16:30		Gelles SVL 6/17/14 11:15									
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)			Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)	
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)			Date/Time		Remarks (attachments if necessary)				



SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/17/14

By: DR Seery

SVL Work No: W4FO346

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				Golper Monsanto
2	Date and time of receipt at lab	✓				6/17/14 11:15
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 34 °C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				GOOD
8	Sample numbers/IDs agree with COC					
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt					NO
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)					✓
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)					✓
19	Shipper's air bill	✓				

V- Verified

VC- Verified Corrections Made

NV- Not Verified

NA- Not Applicable

Additional Comments:

Chain of Custody Record

WTF0347

3/20
3/30

Project No.		Site/Location				Amount/Preservative	1403	1450	Unpreserved	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)
913-1101-002.002		MONSANTO										
Samplers: (Signature)												
<i>Jeremy Jones</i>												
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers	1403	1450	Unpreserved	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)
6/10/14	1030	GRAB	GW		14074	3	1	1	1	13291		MONSANTO ARMAN ANALYSIS
6/10/14	1740	GRAB	GW		14082	3	1	1	1			
6/11/14	1210	GRAB	GW		14086	3	1	1	1			
6/11/14	1500	GRAB	GW		14089	3	1	1	1			
6/10/14	D915	GRAB	GW		14074	3	1	1	1			1
6/11/14	0830	GRAB	GW		14083	3	1	1	1			
6/11/14	1600	GRAB	GW		14091	3	1	1	1			
6/11/14	1430	GRAB	GW		14088	4	1	1	28			
6/11/14	1055	GRAB	GW		14084	3	1	1	1			
6/14/14	1200	GRAB	GW		14125	3	1	1	1			
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)
<i>D. Jones</i>			6/16/14 1630		<i>C. Flores, SVC</i> 6/17/14 13:00							
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary) <i>* DATE & TIME NOT SHOWN ON SAMPLE ID, CF 6/17/14</i>			
IP3 1211/73200												

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information:

Date of acceptance: 1/17/14

By:

SVL Work No: W4F034

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				GOLPER 6/17/14 \$100
2	Date and time of receipt at lab	✓				
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 3.5 °C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				Good
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt					✓ NO
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)					✓
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)					✓
19	Shipper's air bill	✓				

V- Verified VC- Verified Corrections Made

NV-Not Verified NA- Not Applicable

Additional Comments:

Chain of Custody Record

WAF0348

Project No.		Site/Location				Amount/Preservative HNO_3 H_2SO_4 $Unspecified$										Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)			
913-1101-002.002		Monsanto																			
Samplers: (Signature)										 Golder Associates											
Station Number	Date	Time	Sample Type	Media	Sample Identification		Number of Containers														
6/10/14	1100		GRAB	SW	14078		4	2	1	1										13293	Monsanto Annual Analysis
6/12/14	0810		GRAB	SW	14093		4	2	1	1											
6/12/14	1300		GRAB	SW	14100		4	2	1	1											
6/12/14	1415		GRAB	SW	14103		4	2	1	1											
6/12/14	1230		GRAB	SW	14099		4	2	1	1											
6/12/14	1315		GRAB	SW	14102		4	2	1	1											
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)				Date/Time		Received by: (Signature/Firm)								
			6/16/14 1630		 C. Flores, SVL 6/17/14 14:00																
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)				Date/Time		Received by: (Signature/Firm)								
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)												

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/17/14 By: CR Sewy
 SVL Work No: W4FO348

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				GOLDER 6/17/14 14:08
2	Date and time of receipt at lab	✓				
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 18 °C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				GOOD
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt					✓ NO
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)				✓	
19	Shipper's air bill	✓				

V- Verified VC- Verified Corrections Made

NV- Not Verified NA- Not Applicable

Additional Comments:

Chain of Custody Record

W4FO349

Project No.		Site/Location					Amount/Preservative H1123 16JUL LURPES3421CQ	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)	
113-1101-002.002		MONSANTO									
Samplers: (Signature)									Jenny J... <i>[Handwritten Signature]</i>		
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers					
6/14/14	0830				14119	4	2	1	1	13296	MONSANTO ANNUAL ANALYSIS
6/14/14	0930				14120	4	2	1	1		
6/14/14	1000				14121	4	2	1	1		
6/14/14	1030				14122	4	2	1	1		
6/14/14	1100				14123	4	2	1	1		
6/14/14	1130				14124	4	2	1	1		
6/14/14	1300				14126	3A	12	1	1		
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)	
<i>DAN</i>		4/16/14 1036		<i>C. Flores 6/17/14 SVL 14:20</i>							
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)	
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)			



SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/17/14

By: CR Sevey

SVL Work No: W4F0349

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				GOLDER 6/17/14 14:20
2	Date and time of receipt at lab	✓				
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 35°C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				GOOD
8	Sample numbers/IDs agree with COC					
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt				✓	NO
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)					
19	Shipper's air bill	✓				

V-Verified VC- Verified Corrections Made

NV-Not Verified NA- Not Applicable

Additional Comments:

Chain of Custody Record

W4F0350

Project No.		Site/Location										 Golder Associates			
913-1101-002.w2		Monsanto													
Samplers: (Signature)															
<u>Jenny J...m</u>															
Station Number	Date	Time	Sample Type	Media	Sample Identification		Number of Containers	Amount/Preservative	1/2 10 ³	1/2 50 ⁴	1/2 Preservative	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)	
	6/12/14	1500	GRAB	GW	14084		3	1	1	1		13292		Monsanto ANNUAL ANALYSIS	
	6/10/14	1310	GRAB	GW	14080		3	1	1	1					
	6/10/14	1600	GRAB	GW	14081		3	1	1	1					
	6/11/14	1530	GRAB	GW	14087		3	1	1	1					
	6/11/14	1150	GRAB	GW	14085		3	1	1	1					
	6/10/14	0950	GRAB	GW	14075		3	1	1	1					
	6/11/14	1700	GRAB	GW	14092		3	1	1	1					
	6/11/14	1520	GRAB	GW	14090		3	1	1	1					
	6/10/14	1230	GRAB	GW	14079		3	1	1	1					
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)			Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		
<u>D. M.</u>			6/12/14 1630		<u>C. Jones</u> 6/11/14 @ SVL 14:30										
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)			Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)		
Relinquished by: (Signature/Firm)			Date/Time		Received by: (Signature/Firm)			Date/Time		Remarks (attachments if necessary)					

SAMPLE RECEIPT/CHAIN-OF-CUSTODY CHECKLIST

The following items were checked for completeness, correctness, and compliance to project specifications using the Chain-of-Custody (COC) and other supporting information.

Date of acceptance: 6/17/14

By: CR Sevey

SVL Work No: W4FO350

Item	Description	V	VC	NV	NA	Comments
1	Client or project name	✓				GOLDER
2	Date and time of receipt at lab	✓				(6/17/14 14:30)
3	Received by	✓				C. FLORES
4	Temperature blank or cooler temperature	✓				Temp. 4.1 °C.
5	Were the sample(s) received on ice	✓				YES
6	Custody tape/bottle seals	✓				YES
7	Condition of samples upon receipt (leaking; bubbles in VOA vials)	✓				GOOD
8	Sample numbers/IDs agree with COC	✓				
9	Sample date & time agree with COC	✓				
10	Number of containers for each sample	✓				
11	The correct preservative for the analysis requested	✓				
12	Did an SVL employee preserve sample(s) upon receipt					✓ NO
13	Type of container for each sample / volume received	✓				
14	Analysis requested for each sample	✓				
15	Sample matrix description	✓				
16	COC properly completed & legible	✓				
17	Corrections properly made (initials & date)				✓	
18	Additional comments or records of sample condition or treatment (unlisted or missing samples at laboratory, aliquot taken, sample hold, samples subcontracted, communications between client and laboratory)				✓	
19	Shipper's air bill	✓				

V- Verified VC- Verified Corrections Made

NV-Not Verified NA- Not Applicable

Additional Comments:

1406143

Golder Associates Inc

Received: 06/16/2014

Chain of Custody Record

Project No.		Site/Location				Amount/Preservative 1/2 SPT HNO3 ULTRASOFT	Seal Number	Seal Intact? (Yes or No)	Remarks (with initials)	7 Samples	
113 - 1101-002.002		MONSANTO									
Samplers: (Signature)									Jerry J...		
Station Number	Date	Time	Sample Type	Media	Sample Identification	Number of Containers					
6/8/14	1605	GRAB			14070	5	1	2	2	13297	SAMPLE LIST FOR MONSANTO
6/8/14	1520	GRAB			14068	5	1	2	2		
6/13/14	1400	GRAB			14117	6	1	3	2		
6/16/14	1015	GRAB			140-11	4	1	2	1		CONTACT DHOLOME@GOLDER.COM FOR ANALYSIS LIST
6/8/14	1200	GRAB			14061	5	1	2	2		
6/12/14	0840	GRAB			14094	6	1	3	2		
6/16/14	1030	GRAB			14077	5	1	2	2		
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)	
		6/16/14 1630				061614 1705 60.4°C					
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)	
Relinquished by: (Signature/Firm)		Date/Time		Received by: (Signature/Firm)		Date/Time		Remarks (attachments if necessary)			

ATTACHMENT 4
SUPPORTING DATA VALIDATION REVIEW FORMS

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																								
Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)										Lab: SVL, Idaho					Project: Monsanto									
Validated by: <i>Jel</i>										Date: 9/16/2014					SDG: W4F0185					Proj. No.: 913-1101-004-001-IF				
Reviewed by:										Date:					Sample Collection Dates: 6/3, 7, 8/2014									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				
Cooler Temperature: 3.2°C																								
Login Receipt: ok																								
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.	14053	14020	14057	14060	14023	14054																		
Case Narrative: See next page																								
Completeness of Analyses:	A	A	A	A	A	A																		
Preservation:	A	A	A	A	A	A																		
Holding Times: Date Prepared: 6/13/2014 Date Analyzed: 6/17, 23, 24/2014	A	A	A	A	A	A																		
ICP/AA ICV/CCV (90-110%):	A	A	A	A	A	A																		
CRDL STD (50-150%)	A	A	A	A	A	A																		
ICP Interference Check (80-120%):	A	A	A	A	A	A																		
Internal Standards:	A	A	A	A	A	A																		
ICP Serial Dilution (<10%D for >50X IDL):	A	A	A	A	A	A																		
Method Blanks:	A	A	A	A	A	A																		
LCS %R (80-120%):	A	A	A	A	A	A																		
Lab Duplicate, ≤20% RPD ($\leq 35\%$ for soils) for values $\geq 5X$ CRDL or \pm CRDL ($\pm 2X$ CRDL for soils) for values $\leq 5X$ CRDL:	A	A	A	A	A	A																		
MS/MSD:	A	A	A	A	A	A																		
Reporting Limits:	A	A	A	A	A	A																		
Completeness of Analyte List:	A	A	A	A	A	A																		
Field Duplicate Pair:	NA	NA	NA	A	A	NA																		
Equipment/Field Blank:	NA	NA	NA	NA	NA	NA																		

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)	Lab: SVL, Idaho	Project: Monsanto
Field Duplicate Pair: 14022/14023: ok	SDG: W4F0185	Proj. No.: 913-1101-004-001-IF
Field Triplicate/Split: 14059/14060/14061(IAS): ok	Sample Collection Dates:	6/3,7,8/2014

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																				
Matrix/Method: Water / Dissolved Metals by EPA 6010B and 6020 (ICP/MS)												Lab: SVL, Idaho				Project: Monsanto				
Validated by:	<i>Jel Faircloth</i>											Date: 9/16/2014	SDG: W4F0185				Proj. No.: 913-1101-004-001-IF			
Reviewed by:												Date:	Sample Collection Dates: 6/3,7,8/2014							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 3.2°C Login Receipt: ok	14051	14052																		
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.																				
Case Narrative: See next page																				
Completeness of Analyses:	A	A																		
Preservation:	A	A																		
Holding Times: Date Prepared: 6/13,23/2014 Date Analyzed: 6/17,23,24/2014	A	A																		
ICP/AA ICV/CCV (90-110%):	A	A																		
CRDL STD (50-150%):	A	A																		
ICP Interference Check (80-120%):	A	A																		
Internal Standards:	A	A																		
ICP Serial Dilution (<10%D for >50X IDL):	A	A																		
Method Blanks:	A	A																		
LCS %R (80-120%):	A	A																		
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A																		
MS/MSD:	A	A																		
Reporting Limits:	A	A																		
Completeness of Analyte List:	A	A																		
Field Duplicate Pair:	NA	NA																		
Equipment/Field Blank:	NA	NA																		
Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.																				

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / Dissolved Metals by EPA 6010B and 6020 (ICP/MS)

Lab: SVL, Idaho

Project: Monsanto

Post Digest Spike on sample 14051 had Mg out of control low at 47%. No action since MS/MSD was in control.

SDG: W4F0185

Proj. No.: 913-1101-004-
001-IF

Sample Collection Dates: 6/3, 7, 8/2014

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																					
Matrix/Method: Water / EPA 300.0 (Cl, F, SO ₄); EPA 350.1 (NH ₃); EPA 353.2 (NO ₃ +NO ₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous)											Lab: SVL, Idaho			Project: Monsanto							
Validated by: <i>Jill Faulkner</i>											Date: 9/16/2014			SDG: W4F0185			Proj. No.: 913-1101-004-001-IF				
Reviewed by:											Date:			Sample Collection Dates: 6/3,7,8/2014							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Cooler Temperature: 3.2°C Login Receipt: ok	14053	14020	14057	14060	14023	14051	14052	14054													
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.)	A	A	A	A	A	A	A	A													
Case Narrative: See next page	A	A	A	A	A	A	A	A													
Completeness of Analyses:	A	A	A	A	A	A	A	A													
Preservation:	A	A	A	A	A	A	A	A													
Holding Times: Date Prepared: Date Analyzed: 6/12,17,18,20/2014	A	A	A	A	A	A	A	A													
ICV/CCV (90-110%):	A	A	A	A	A	A	A	A													
Calibration Check (Correlation):	A	A	A	A	A	A	A	A													
Method Blanks:	A	A	A	A	A	A	A	A													
LCS %R (80-120%):	A	A	A	A	A	A	A	A													
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A	A	A													
MS/MSD:	X	X	X	X	X	X	X	X													
Reporting Limits:	A	A	A	A	A	A	A	A													
Completeness of Analyte List:	A	A	A	A	A	A	A	A													
Field Duplicate Pair:	NA	NA	NA	A	X	NA	NA	NA													
Equipment/Field Blank:	NA																				

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2
 Matrix/Method: Water / EPA 300.0 (Cl, F, SO₄); EPA 350.1 (NH₃); EPA 353.2 (NO₃+NO₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous)

Field Duplicate Pair: 14022/14023: RPD for Ammonia > 20%. Result for 14023 is <5X RL, but 14022 is >5X RL. RPD for Phosphorus > 20%. Both results are >5X RL. Qualify both results as estimated (J) for Ammonia and Phosphorus on 14022 and 14023.

Field Triplicate/Split: 14059/14060/14061 (ASL); sk

Lab: SVL, Idaho

Project: Monsanto

SDG: W4E0185

Proj. No.: 913-1101-004-
001-TE

Sample Collection Dates: 6/3,7,8/2014

MS/MSD for NO₂-NO₃ out of control high in batches W425097 and W425260. DV Comment: Qualify associated detected results as estimated with a high bias (+). Samples 14052

MS/MSD for Cl and SO₄: Recovery not acceptable, sample concentration more than four times greater than spike level. DV comment: No action other than to note.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																				
Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)												Lab: SVL, Idaho				Project: Monsanto				
Validated by:	<i>Jel Lankheet</i>						Date: 9/16/2014				SDG: W4F0187				Proj. No.: 913-1101-004-001-IF					
Reviewed by:							Date:				Sample Collection Dates: 6/6/2014									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 5.6°C																				
Login Receipt: ok																				
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.	14047	14045	14048	14037	14039	14040	14038	14042												
Case Narrative: See next page																				
Completeness of Analyses:	A	A	A	A	A	A	A	A												
Preservation:	A	A	A	A	A	A	A	A												
Holding Times: Date Prepared: 6/13/2014 Date Analyzed: 6/18, 24/2014	A	A	A	A	A	A	A	A												
ICP/AA ICV/CCV (90-110%):	A	A	A	A	A	A	A	A												
CRDL STD (50-150%)	A	A	A	A	A	A	A	A												
ICP Interference Check (80-120%):	A	A	A	A	A	A	A	A												
Internal Standards:	A	A	A	A	A	A	A	A												
ICP Serial Dilution (<10%D for >50X IDL):	A	A	A	A	A	A	A	A												
Method Blanks:	A	A	A	A	A	A	A	A												
LCS %R (80-120%):	A	A	A	A	A	A	A	A												
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A	A	A												
MS/MSD:	A	A	A	A	A	A	A	A												
Reporting Limits:	A	A	A	A	A	A	A	A												
Completeness of Analyte List:	A	A	A	A	A	A	A	A												
Field Duplicate Pair:	NA	NA	NA	NA	A	A	A	NA												
Equipment/Field Blank:	NA	NA	NA	X	NA	NA	NA	NA												
Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.																				

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / EPA 300.0 (Cl, F, SO ₄); EPA 350.1 (NH ₃); EPA 353.2 (NO ₃ +NO ₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous)												Lab: SVL, Idaho				Project: Monsanto							
Validated by: <i>Jel</i>												Date: 9/16/2014				SDG: W4F0187				Proj. No.: 913-1101-004-001-IF			
Reviewed by:												Date:				Sample Collection Dates: 6/6/2014							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Cooler Temperature: 5.6°C	14047	14045	14048	14037	14039	14040	14038	14042															
Login Receipt: ok																							
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.																							
Case Narrative: See next page																							
Completeness of Analyses:	A	A	A	A	A	A	A	A															
Preservation:	A	A	A	A	A	A	A	A															
Holding Times: Date Prepared: Date Analyzed: 6/12,18,20/2014	A	A	A	A	A	A	A	A															
ICV/CCV (90-110%):	A	A	A	A	A	A	A	A															
Calibration Check (Correlation):	A	A	A	A	A	A	A	A															
Method Blanks:	A	A	A	A	A	A	A	A															
LCS %R (80-120%):	A	A	A	A	A	A	A	A															
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A	A	A															
MS/MSD:	X	X	X	X	X	X	X	X															
Reporting Limits:	A	A	A	A	A	A	A	A															
Completeness of Analyte List:	A	A	A	A	A	A	A	A															
Field Duplicate Pair:	NA	NA	NA	NA	A	X	A	NA															
Equipment/Field Blank:	NA	NA	NA	X	NA	NA	NA	NA															

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)												Lab: SVL, Idaho				Project: Monsanto							
Validated by: <i>Jel Fenster</i>												Date: 9/16/2014				SDG: W4F0188				Proj. No.: 913-1101-004-001-IF			
Reviewed by:												Date:				Sample Collection Dates: 6/4,5,6/2014							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Cooler Temperature: 5.5°C																							
Login Receipt: ok																							
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.)	14026	14029	14036	14035	14030	14028	14044	14046	14043														
Case Narrative: See next page																							
Completeness of Analyses:	A	A	A	A	A	A	A	A	A														
Preservation:	A	A	A	A	A	A	A	A	A														
Holding Times: Date Prepared: 6/13/2014 Date Analyzed: 6/24/2014	A	A	A	A	A	A	A	A	A														
ICP/AA ICV/CCV (90-110%):	A	A	A	A	A	A	A	A	A														
CRDL STD (50-150%)	A	A	A	A	A	A	A	A	A														
ICP Interference Check (80-120%):	A	A	A	A	A	A	A	A	A														
Internal Standards:	A	A	A	A	A	A	A	A	A														
ICP Serial Dilution (<10%D for >50X IDL):	A	A	A	A	A	A	A	A	A														
Method Blanks:	A	A	A	A	A	A	A	A	A														
LCS %R (80-120%):	A	A	A	A	A	A	A	A	A														
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A	A	A	A														
MS/MSD:	A	A	A	A	A	A	A	A	A														
Reporting Limits:	A	A	A	A	A	A	A	A	A														
Completeness of Analyte List:	A	A	A	A	A	A	A	A	A														
Field Duplicate Pair:	A	NA																					
Equipment/Field Blank:	NA																						

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / EPA 300.0 (Cl, F, SO ₄); EPA 350.1 (NH ₃); EPA 353.2 (NO ₃ +NO ₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous); *SM2540D (TSS); *SM5310B (TOC)												Lab: SVL, Idaho			Project: Monsanto					
Validated by: <i>Jill Faulkner</i>												Date: 9/16/2014			SDG: W4F0188			Proj. No.: 913-1101-004-001-IF		
Reviewed by:												Date:			Sample Collection Dates: 6/4,5,6/2014					
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 5.5°C	14026	14029	14036	14035	14030	14028	14044	14046	14043	TW58*										
Login Receipt: ok																				
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.																				
Case Narrative: See next page																				
Completeness of Analyses:	A	A	A	A	A	A	A	A	A	A										
Preservation:	A	A	A	A	A	A	A	A	A	A										
Holding Times: Date Prepared: Date Analyzed: 6/11,18,19,20,24	A	A	A	A	A	A	A	A	A	A										
ICV/CCV (90-110%):	A	A	A	A	A	A	A	A	A	A										
Calibration Check (Correlation):	A	A	A	A	A	A	A	A	A	A										
Method Blanks:	A	A	A	A	A	A	A	A	A	A										
LCS %R (80-120%):	A	A	A	A	A	A	A	A	A	A										
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A	A	A	A	A										
MS/MSD:	X	X	X	X	X	X	X	X	X	X										
Reporting Limits:	A	A	A	A	A	A	A	A	A	A										
Completeness of Analyte List:	A	A	A	A	A	A	A	A	A	A										
Field Duplicate Pair:	A	NA																		
Equipment/Field Blank:	NA																			

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / EPA 300.0 (Cl, F, SO4); EPA 350.1 (NH3); EPA 353.2 (NO3+NO2); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous); *SM2540D (TSS); *SM5310B (TOC)	Lab: SVL, Idaho	Project: Monsanto
Field Duplicate Pair: 14025/14026: ok	SDG: W4F0188	proj. No.: 913-1101-004-001-IF
		Sample Collection Dates: 6/4,5,6/2014

MS/MSD for Cl : Recovery not acceptable, sample concentration more than four times greater than spike level. DV comment: No action other than to note.

Result Verification (10% of results): Sample 14035: Back-calculated parameters are ok.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																										
Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)										Lab: SVL, Idaho			Project: Monsanto													
Validated by: <i>Jef Fawcett</i>										Date: 9/16/2014			SDG: W4F0190			Proj. No.: 913-1101-004-001-IF										
Reviewed by:										Date:			Sample Collection Dates: 6/3,7,8,9/2014													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20						
Cooler Temperature: 5.0°C																										
Login Receipt: ok																										
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.	14019	14055	14056	14058	14059	14072	14073																			
Case Narrative: See next page																										
Completeness of Analyses:	A	A	A	A	A	A	A																			
Preservation:	A	A	A	A	A	A	A																			
Holding Times: Date Prepared: 6/13,23/2014 Date Analyzed: 6/17,23/2014	A	A	A	A	A	A	A																			
ICP/AA ICV/CCV (90-110%):	A	A	A	A	A	A	A																			
CRDL STD (50-150%)	A	A	A	A	A	A	A																			
ICP Interference Check (80-120%):	A	A	A	A	A	A	A																			
Internal Standards:	A	A	A	A	A	A	A																			
ICP Serial Dilution (<10%D for >50X IDL):	A	A	A	A	A	A	A																			
Method Blanks:	A	A	A	A	A	A	A																			
LCS %R (80-120%):	A	A	A	A	A	A	A																			
Lab Duplicate, ≤20% RPD ($\leq 35\%$ for soils) for values $\geq 5X$ CRDL or $\pm CRDL$ ($\pm 2X$ CRDL for soils) for values $\leq 5X$ CRDL:	A	A	A	A	A	A	A																			
MS/MSD:	A	A	A	A	A	A	A																			
Reporting Limits:	A	A	A	A	A	A	A																			
Completeness of Analyte List:	A	A	A	A	A	A	A																			
Field Duplicate Pair:	NA	NA	NA	NA	A	NA	NA																			
Equipment/Field Blank:	NA																									

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)

Lab: SVL, Idaho

Project: Monsanto

Field Triplicate/Split: 14059/14060/14061(IAS): ok

SDG: W4F0190

Proj. No.: 913-1101-004-
001-IF

Sample Collection Dates: 6/3,7,8,9/2014

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																															
Matrix/Method: Water / Dissolved Metals by EPA 6010B and 6020 (ICP/MS)												Lab: SVL, Idaho				Project: Monsanto															
Validated by: <i>Jel</i>												Date: 9/16/2014				SDG: W4F0190				Proj. No.: 913-1101-004-001-IF											
Reviewed by:												Date:				Sample Collection Dates: 6/3,7,8,9/2014															
												1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 5.0°C Login Receipt: ok												14049	14050																		
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.)																															
Case Narrative: See next page																															
Completeness of Analyses:												A	A																		
Preservation:												A	A																		
Holding Times: Date Prepared: 6/13,23/2014 Date Analyzed: 6/17,23/2014												A	A																		
ICP/AA ICV/CCV (90-110%):												A	A																		
CRDL STD (50-150%)												A	A																		
ICP Interference Check (80-120%):												A	A																		
Internal Standards:												A	A																		
ICP Serial Dilution (<10%D for >50X IDL):												A	A																		
Method Blanks:												A	A																		
LCS %R (80-120%):												A	A																		
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:												A	A																		
MS/MSD:												X	A																		
Reporting Limits:												A	A																		
Completeness of Analyte List:												A	A																		
Field Duplicate Pair:												NA	NA																		
Equipment/Field Blank:												NA	NA																		
Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.																															

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / Dissolved Metals by EPA 6010B and 6020 (ICP/MS)

Lab: SVL, Idaho

Project: Monsanto

MS %R for Selenium out of control high at 140%. MSD in control. Post digest spike in control. Qualify associated results as estimated (J). Samples 14049 and 14050.

SDG: W4F0190

Proj. No.: 913-1101-004-
001-IF

Post Digest Spike on sample 14049 had Ca, Mg, and Na out of control low. No action since MS/MSD was in control.

Sample Collection Dates: 6/3,7,8,9/2014

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																							
Matrix/Method: Water / EPA 300.0 (Cl, F, SO ₄); EPA 350.1 (NH ₃); EPA 353.2 (NO ₃ +NO ₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous)												Lab: SVL, Idaho				Project: Monsanto							
Validated by: <i>Jel Lander</i>												Date: 9/16/2014				SDG: W4F0190				Proj. No.: 913-1101-004-001-IF			
Reviewed by:												Date:				Sample Collection Dates: 6/3,7,8,9/2014							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Cooler Temperature: 5.0°C																							
Login Receipt: ok																							
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.	14019	14049	14055	14056	14058	14059	14072	14073	14050														
Case Narrative: See next page																							
Completeness of Analyses:	A	A	A	A	A	A	A	A	A														
Preservation:	A	A	A	A	A	A	A	A	A														
Holding Times: Date Prepared: Date Analyzed: 6/10,11,12,18,19,24/2014	A	A	A	A	A	A	A	A	A														
ICV/CCV (90-110%):	A	A	A	A	A	A	A	A	A														
Calibration Check (Correlation):	A	A	A	A	A	A	A	A	A														
Method Blanks:	A	A	A	A	A	A	A	A	A														
LCS %R (80-120%):	A	A	A	A	A	A	A	A	A														
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A	A	A	A														
MS/MSD:	A	A	A	A	A	A	A	A	A														
Reporting Limits:	A	A	A	A	A	A	A	A	A														
Completeness of Analyte List:	A	A	A	A	A	A	A	A	A														
Field Duplicate Pair:	NA	NA	NA	NA	NA	NA	A	NA	NA	NA													
Equipment/Field Blank:	NA	NA																					

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / EPA 300.0 (Cl, F, SO₄); EPA 350.1 (NH₃); EPA 353.2 (NO₃+NO₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous)

Lab: SVL, Idaho

Project: Monsanto

Field Triplicate/Split: 14059/14060/14061(IAS): ok

SDG: W4F0190

Proj. No.: 913-1101-004-
001-IF

MS/MSD for Cl and SO4: Recovery not acceptable, sample concentration more than four times greater than spike level. DV comment: No action other than to note.

Sample Collection Dates: 6/3,7,8,9/2014

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																				
Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)												Lab: SVL, Idaho				Project: Monsanto				
Validated by:	<i>Jill Lanahan</i>						Date: 9/16/2014				SDG: W4F0192				Proj. No.: 913-1101-004-001-IF					
Reviewed by:							Date:				Sample Collection Dates: 6/8/2014									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 5.6°C																				
Login Receipt: ok																				
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.	14062	14063	14064	14065	14066	14067	14069	14071												
Case Narrative: See next page																				
Completeness of Analyses:	A	A	A	A	A	A	A	A												
Preservation:	A	A	A	A	A	A	A	A												
Holding Times: Date Prepared: 6/13/2014 Date Analyzed: 6/17,24/2014	A	A	A	A	A	A	A	A												
ICP/AA ICV/CCV (90-110%):	A	A	A	A	A	A	A	A												
CRDL STD (50-150%)	A	A	A	A	A	A	A	A												
ICP Interference Check (80-120%):	A	A	A	A	A	A	A	A												
Internal Standards:	A	A	A	A	A	A	A	A												
ICP Serial Dilution (<10%D for >50X IDL):	A	A	A	A	A	A	A	A												
Method Blanks:	A	A	A	A	A	A	A	A												
LCS %R (80-120%):	A	A	A	A	A	A	A	A												
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A	A	A												
MS/MSD:	A	A	A	A	A	A	A	A												
Reporting Limits:	A	A	A	A	A	A	A	A												
Completeness of Analyte List:	A	A	A	A	A	A	A	A												
Field Duplicate Pair:	NA	A	A	A	A	A	A	A	NA											
Equipment/Field Blank:	NA	NA	NA	NA	NA	NA	NA	NA	NA											

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																						
Matrix/Method: Water / EPA 300.0 (Cl, F, SO ₄); EPA 350.1 (NH ₃); EPA 353.2 (NO ₃ +NO ₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous)													Lab: SVL, Idaho			Project: Monsanto						
Validated by: <i>Jel</i>													Date: 9/16/2014			SDG: W4F0192			Proj. No.: 913-1101-004-001-IF			
Reviewed by:													Date:			Sample Collection Dates: 6/8/2014						
<p>Cooler Temperature: 5.6°C Login Receipt: ok Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method. Case Narrative: See next page</p> <p>Completeness of Analyses:</p> <p>Preservation:</p> <p>Holding Times: Date Prepared: Date Analyzed: 6/11, 12, 18, 19, 20, 24/2014</p> <p>ICV/CCV (90-110%):</p> <p>Calibration Check (Correlation):</p> <p>Method Blanks:</p> <p>LCS %R (80-120%):</p> <p>Lab Duplicate, ≤20% RPD ($\leq 35\%$ for soils) for values $\geq 5X$ CRDL or \pmCRDL ($\pm 2X$CRDL for soils) for values $\leq 5X$ CRDL:</p> <p>MS/MSD:</p> <p>Reporting Limits:</p> <p>Completeness of Analyte List:</p> <p>Field Duplicate Pair:</p> <p>Equipment/Field Blank:</p>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
	14062	14063	14064	14065	14066	14067	14069	14071														
	A	A	A	A	A	A	A	A														
	A	A	A	A	A	A	A	A														
	A	A	A	A	A	A	A	A														
	A	A	A	A	A	A	A	A														
	A	A	A	A	A	A	A	A														
	A	A	A	A	A	A	A	A														
	X	X	X	X	X	X	X	X														
	A	A	A	A	A	A	A	A														
NA	X	X	A	A	X	X	NA															
NA	NA	NA	NA	NA	NA	NA	NA															

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)												Lab: SVL, Idaho				Project: Monsanto															
Validated by: <i>Jel Finkler</i>												Date: 9/16/2014				SDG: W4F0193				Proj. No.: 913-1101-004-001-IP											
Reviewed by:												Date:				Sample Collection Dates: 6/3,4,5/2014															
												1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 4.4°C Login Receipt: ok												14032	14033	14031	14034	14024	14022	14021	14025	14027											
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.)												A	A	A	A	A	A	A	A	A											
Case Narrative: See next page												A	A	A	A	A	A	A	A	A											
Completeness of Analyses:												A	A	A	A	A	A	A	A	A											
Preservation:												A	A	A	A	A	A	A	A	A											
Holding Times: Date Prepared: 6/13/2014 Date Analyzed: 6/18,24/2014												A	A	A	A	A	A	A	A	A											
ICP/AA ICV/CCV (90-110%):												A	A	A	A	A	A	A	A	A											
CRDL STD (50-150%)												A	A	A	A	A	A	A	A	A											
ICP Interference Check (80-120%):												A	A	A	A	A	A	A	A	A											
Internal Standards:												A	A	A	A	A	A	A	A	A											
ICP Serial Dilution (<10%D for >50X IDL):												A	A	A	A	A	A	A	A	A											
Method Blanks:												A	A	A	A	A	A	A	A	A											
LCS %R (80-120%):												A	A	A	A	A	A	A	A	A											
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:												A	A	A	A	A	A	A	A	A											
MS/MSD:												A	A	A	A	A	A	A	A	A											
Reporting Limits:												A	A	A	A	A	A	A	A	A											
Completeness of Analyte List:												A	A	A	A	A	A	A	A	A											
Field Duplicate Pair:												NA	NA	NA	NA	NA	NA	A	NA	A	NA										
Equipment/Field Blank:												NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.																															

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / EPA 300.0 (Cl, F, SO ₄); EPA 350.1 (NH ₃); EPA 353.2 (NO ₃ +NO ₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous)												Lab: SVL, Idaho				Project: Monsanto							
Validated by: <i>Jill Faulkner</i>												Date: 9/16/2014				SDG: W4F0193				Proj. No.: 913-1101-004-001-IF			
Reviewed by:												Date:				Sample Collection Dates: 6/3,4,5/2014							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
Cooler Temperature: 4.4°C																							
Login Receipt: ok																							
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.	14032	14033	14031	14034	14024	14022	14021	14025	14027														
Case Narrative: See next page																							
Completeness of Analyses:	A	A	A	A	A	A	A	A	A														
Preservation:	A	A	A	A	A	A	A	A	A														
Holding Times: Date Prepared: Date Analyzed: 6/10,11,18,19,24/14	A	A	A	A	A	A	A	A	A														
ICV/CCV (90-110%):	A	A	A	A	A	A	A	A	A														
Calibration Check (Correlation):	A	A	A	A	A	A	A	A	A														
Method Blanks:	A	A	A	A	A	A	A	A	A														
LCS %R (80-120%):	A	A	A	A	A	A	A	A	A														
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A	A	A	A														
MS/MSD:	X	X	X	X	X	X	X	X	X														
Reporting Limits:	A	A	A	A	A	A	A	A	A														
Completeness of Analyte List:	A	A	A	A	A	A	A	A	A														
Field Duplicate Pair:	NA	NA	NA	NA	NA	NA	X	NA	A	NA													
Equipment/Field Blank:	NA	NA																					

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																				
Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)												Lab: SVL, Idaho			Project: Monsanto					
Validated by:	<i>Jeff Fankhauser</i>						Date: 9/19/2014			SDG: W4F0343			Proj. No.: 913-1101-004-001-IP							
Reviewed by:							Date:			Sample Collection Dates: 6/13/2014										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 2.4°C	14112	14113	14114	14115	14116	14118														
Login Receipt: ok																				
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.																				
Case Narrative: See next page																				
Completeness of Analyses:	A	A	A	A	A	A														
Preservation:	A	A	A	A	A	A														
Holding Times: Date Prepared: 6/23/2014, 6/30/2014 Date Analyzed: 6/30/2014, 7/1/2014	A	A	A	A	A	A														
ICP/AA ICV/CCV (90-110%):	A	A	A	A	A	A														
CRDL STD (50-150%)	A	A	A	A	A	A														
ICP Interference Check (80-120%):	A	A	A	A	A	A														
Internal Standards:	A	A	A	A	A	A														
ICP Serial Dilution (<10%D for >50X IDL):	X	X	X	X	X	X														
Method Blanks:	A	A	A	A	A	A														
LCS %R (80-120%):	A	A	A	A	A	A														
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A														
MS/MSD:	A	A	A	A	A	A														
Reporting Limits:	A	A	A	A	A	A														
Completeness of Analyte List:	A	A	A	A	A	A														
Field Duplicate Pair:	NA	NA	NA	NA	NA	NA														
Equipment/Field Blank:	NA	NA	NA	NA	NA	NA														

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)

Se results for E qualified by lab (% recovery of serial dilution was 10% or greater and the initial samples were 50XMDL). Qualify Se results as UI/J (estimated). Samples 14112, 14113, 14114, 14115, 14116, 14118

Result Verification (10% of results): Sample 14115: Metals are ok.

Lab: SVL, Idaho

Project: Monsanto

SDG: W4F0343

Proj. No.: 913-1101-004-
001-IF

Sample Collection Dates: 6/13/2014

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / Dissolved Metals by EPA 6010B and 6020 (ICP/MS)

Lab: SVL, Idaho

Project: Monsanto

Validated by:

Jef Faulkner

Date: 9/19/2014

SDG: W4F0343

Proj. No.: 913-1101-004-001-IF

Reviewed by:

Date:

Sample Collection Dates: 6/13/2014

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 2.4°C																				
Login Receipt: ok																				
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.	14112	14113	14114	14115	14116	14118														
Case Narrative: See next page																				
Completeness of Analyses:	A	A	A	A	A	A														
Preservation:	A	A	A	A	A	A														
Holding Times: Date Prepared: 6/23/2014, 6/30/2014 Date Analyzed: 6/30/2014, 7/1/2014	A	A	A	A	A	A														
ICP/AA ICV/CCV (90-110%):	A	A	A	A	A	A														
CRDL STD (50-150%)	A	A	A	A	A	A														
ICP Interference Check (80-120%):	A	A	A	A	A	A														
Internal Standards:	A	A	A	A	A	A														
ICP Serial Dilution (<10%D for >50X IDL):	X	X	X	X	X	X														
Method Blanks:	A	A	A	A	A	A														
LCS %R (80-120%):	A	A	A	A	A	A														
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A														
MS/MSD:	A	A	A	A	A	A														
Reporting Limits:	A	A	A	A	A	A														
Completeness of Analyte List:	A	A	A	A	A	A														
Field Duplicate Pair:	NA	NA	NA	NA	NA	NA														
Equipment/Field Blank:	NA	NA	NA	NA	NA	NA														

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / Dissolved Metals by EPA 6010B and 6020 (ICP/MS)

Lab: SVL, Idaho

Project: Monsanto

Se results for E qualified by lab (% recovery of serial dilution was 10% or greater and the initial samples were 50XMDL). Qualify Se results as UI/J (estimated). Samples 14112, 14113, 14114, 14115, 14116, 14118

SDG: W4F0343

Proj. No.: 913-1101-004-
001-IF

Result Verification (10% of results): Sample 14115: Metals are ok.

Sample Collection Dates: 6/13/2014

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / EPA 300.0 (Cl, F, SO ₄); EPA 350.1 (NH ₃); EPA 353.2 (NO ₃ +NO ₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous)												Lab: SVL, Idaho			Project: Monsanto								
Validated by: <i>Jel Finslett</i>												Date: 9/19/2014			SDG: W4F0343			Proj. No.: 913-1101-004-001-IF					
Reviewed by:												Date:			Sample Collection Dates: 6/13/2014								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20			
	14112	14113	14114	14115	14116	14118																	
Cooler Temperature: 2.4°C Login Receipt: ok																							
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.)																							
Case Narrative: See next page																							
Completeness of Analyses:	A	A	A	A	A	A																	
Preservation:	A	A	A	A	A	A																	
Holding Times: Date Prepared: Date Analyzed: 6/18,19,26,27,30,7/1,2/2014	A	A	A	A	A	A																	
ICV/CCV (90-110%):	A	A	A	A	A	A																	
Calibration Check (Correlation):	A	A	A	A	A	A																	
Method Blanks:	A	A	A	A	A	A																	
LCS %R (80-120%):	A	A	A	A	A	A																	
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	X	X	X	X	X	X																	
MS/MSD:	X	X	X	X	X	X																	
Reporting Limits:	A	A	A	A	A	A																	
Completeness of Analyte List:	A	A	A	A	A	A																	
Field Duplicate Pair:	NA	NA	NA	NA	NA	NA																	
Equipment/Field Blank:	NA	NA	NA	NA	NA	NA																	

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / EPA 300.0 (Cl, F, SO₄); EPA 350.1 (NH₃); EPA 353.2 (NO₃+NO₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous) | Lab: SVL, Idaho | Project: Monsanto

CI Duplicate RPD 36.1%. Not noted by lab. Qualify all samples as estimated J/U/J for CI.

MS/MSD for Cl and SO4: Recovery not acceptable, sample concentration more than four times greater than spike level. DV comment: No action other than to note.

MSD for NO₂/NO₃ out of control high. Qualify detected affected samples as J+. Sample 14116.

Result Verification (10% of results): Sample 14115: Back-calculated parameters are ok.

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

GOLDER PROJECT #: 913-1101.004	ph .001	SITE: Monsanto, Soda Springs, ID
LABORATORY: SVL Analytical, Inc.	SDG: #W4F0345	
SAMPLES		COLLECTED
14105 through 14111 (7 Samples)		6-13-2014
		WATER
No Splits, No Field Blanks, No Field Duplicates		

DATA ASSESSMENT SUMMARY

REVIEW ITEM	ICP/AES	ICP/MS	NH ₃	NO ₂ /NO ₃	ALK, CO ₂ , HCO ₃	Anion	TDS, TSS	Tot-Phos. TOC
1. Data Completeness	O	O	O	O	O	O	O	O
2. Preservation / Holding Times	O	O	O	O	O	O	O	O
3. Calibration/ ICP/MS Tune	O	O	O	O	O	O	O	O
4. ICP/MS Internal Stnds.	O	O	-	-	-	-	-	-
5. Interference Checks	O	O	-	-	-	-	-	-
6. Blanks, Field Blanks	O	X ^①	O	O	O	O	O	O
7. Lab Duplicate/ F. Duplic RPD	O	O	O	O	O	O	O	O
8. LCS, Blank Spike, MFS	O	O	O	O	O	O	O	O
9. Matrix Spike, MSD	O	O	O	O	O	O	O	O
10. GFAA, MSA, Serial Dil.	-	X ^②	-	-	-	-	-	-
11. Detection Limits, Other QC	O	O	O	O	O	O	O	O
12. Data Verification, Overall Summary	O	O	O	O	O	O	O	O

O = Data had no problems

⊖ = Problems, but do not affect data

X = Data qualified due to minor problems [typically estimated data (J or UJ)].

M = Data qualified due to major problems [typically more than 50% qualified (J/UJ)].

Z = Data unacceptable [typically data rejected (R)].

Comments/Qualified Results:

① 14105, 14107, 14108, 14109 J+ for Cd due to CCB contamination.

② 14105 → 14111, J for Total Se due to serial dilution >10% D. Effects only J+.

Validated by:

Date:

Reviewed by: *Jill Peiffer*

Date: 9/22/2014

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

1. Date Package Completeness (Check if present).....

- | | | | |
|---------------------------------------------------------|----------------------------------------------------|--------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Case narrative | <input type="checkbox"/> Spike Recovery Results | <input type="checkbox"/> ICP Linear Ranges | <input type="checkbox"/> Other _____ |
| <input checked="" type="checkbox"/> Chain of Custody | <input type="checkbox"/> Duplicate Results | <input type="checkbox"/> Preparation Logs | <input checked="" type="checkbox"/> Acceptable |
| <input checked="" type="checkbox"/> Sample Results | <input type="checkbox"/> LCS Results | <input type="checkbox"/> Analysis Run Logs | <input checked="" type="checkbox"/> Absent |
| <input type="checkbox"/> ICV/CCV Results | <input type="checkbox"/> Standard Addition Results | <input type="checkbox"/> ICP Raw Data | <input type="checkbox"/> Not required for data package requested. |
| <input type="checkbox"/> Blank Results | <input type="checkbox"/> ICP Serial Dilution | <input type="checkbox"/> GFAA Raw Data | |
| <input type="checkbox"/> ICP Interference Check Results | <input type="checkbox"/> Instrument Det. Limits | <input type="checkbox"/> Hg Raw Data | |
| | <input type="checkbox"/> ICP Correction Factor | <input type="checkbox"/> Cyanide Raw Data | |

Comments/Qualified Results: Sample recpt @ 5.8 deg C. Preservation complete.

2. Holding Times (Check all that apply).....

- ICP/GFAA metals completed in <6 months from collection
 Mercury analyzed in <28 days from collection
 Cyanide completed in 14 days from collection

Comments/Qualified Results: See Holding Time summary Table A1-SDG#

W4F0345. No Qualifications applied.

Sample Prep: Metals Batch# W425147, 6/23(TotRec, Run#14180B),

W425150, 6/30(Dissolv, Run#14181B);

Se # W425165 6/23(TotRec Run#14182B), # W425167 6/23(Dissolv Run#14182B);

3. Calibrations (Check all that apply).....

- ICV/CCV %R for ICP/AA & ICP/MS, 90%-110%, acceptable
 ICV/CCV %R for ICP/AA, 75%-89% or 111%-125%, results estimated (J/UJ)
 ICV/CCV %R for ICP/AA, <75% or >125%, reject positive results (R)
- ICV/CCV %R for ICP/MS 80-120% for Hg, results accepted
 CRDL Check Stnd %R 70 – 130, (50-150 SbPbTl)
 ICV/CCV %R for Hg, 65%-79% or 121%-135%, results estimated (J/UJ)
 ICP/MS TUNE: Isotope RSD % <5 %

Comments/Qualified Results: ✓ TotRecov Metals ICV: 6-29-14@1033, CCV: 1053, 1135, 1220, 1235. Dissolv Metals ICV: 6-30-14 @1214, CCV: 1231, 1304, 1353, 1407, 1500, 1558, 1607. ✓ Se, TotRecov 7-01-14 @0818, CCV:0834, 0905, 0936, 1001. ✓ CRDL(CRI): Metals, 6-29; Se, 7-01.

✓ Standards: ICP-AES, CRDL, ICS solution, 7/01/14 ICP/MS Tune (DRC-E PerkinElmer);

Anions: ✓ r₂ > 0.995, 6-25-14; ✓ NH₃; 7-01-14, r₂= 0.9997, ✓ NO₂/NO₃: 7-02-14, r₂= 0.99994., ✓ tPhos: 6-30-14,r₂= 0.9998; TDS, 6/18; Alkalinity: 6/19 Buffer checks: 7=7.03, 4=4.02;

4. Internal Standards (ICP/MS ONLY - Check all that apply).....

- Appropriate ISTD used for m/z isotopes required; eg, Sc, Ho, Ge, In, Li+6, or Au, (Y, Rh, Tb, Bi, or Lu); Within 40 amu.
 ISTD at least 70% recovery of Counts from the ICB reference [Method reference]
 ISTD between 60% to 125% recovery met ? [DV reference]
- Sample or QC run at a 2X dilution for failed %RI ?
 If ISTD not within criteria, and not re-run @ 2X dilution, then J/UJ for associated element isotopes.
 If ISTD not included to analyses, or element isotopes not associated with required ISTD, reject ('R) sample results.

Comments/Qualified Results: ✓ Se, 7-08-14, In, Ga, @72-103% (TotRecov), @67-103%(Dissolv).

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

5. Interference Checks (Check all that apply).....

- ICS A/B Recoveries Acceptable
 Al, Ca, Fe, Mg sample concentrations > ICS concentrations
 ICS %R > 120%, results >IDL estimated (J)
- ICS %R 50-79%, results >IDL estimated (J)
 ICS %R 50-79%, results <IDL estimated (UJ)
 ICS %R <50%, results >IDL and <IDL rejected (R/UR)

Comments/Qualified Results: Metals-TotRecov 6-29 @ 1049; Metals-Dissolved 6-30 @ 1228; Se 7-01-14 @ 0831.

6. Lab Blanks, Field Blanks (Check all that apply).....

- Detects reported in ICB/CCB list:
 Detects in preparation blanks, list:
 Detects in field blanks, list
- Field Blank ID: _____
Lab Blank ID: _____

Qualified as undetected (U) all sample concentrations $\leq 10X$ any associated blank concentrations and less than the PQL, or J+ for samples greater than the PQL.

Comments/Qualified Results: ICB: Metals, 6/29 @ 1039, CCB: 1056, 1138, 1146, 1222 [Trace Cd –Qualifies 14105, 14107, 14108, 14109 as estimated “J+”], 1238; ICB: 6/30 @ 1219; CCB: 1056, 1233, 1307, 1356, 1410, 1503 - Metals all ND; ICB: Se, 7/01 @ 0822. CCB: Se all ND @ MDL.

- Prep. Blanks: Metals TotRecov #W425147 trace Ca does not apply; All others ND; Dissolv #W425150, All ND; Se, TotRecov #W425167, ND; Dissolv #W425165, ND;
 Prep Blanks: NH3(W426077), NO3/NO2-N(W426086), tot-Alkalinity(W425170), TDS(W425190), Phos. (W427048), Anions(W426123), all ND @MRL.

7. Lab Duplicates, Field Duplicates (Check all that apply).....

- Duplicate RPD $\leq 20\%$ for waters ($\leq 35\%$ for soils) for results $>5X$ CRDL
 Duplicate range is within \pm CRDL ($\pm 2X$ CRDL for soils) for results $<5X$ CRDL
Field Duplicate ID None

Comments/Qualified Results Sample 14105: (TotRec #W425147, 6/23)Metals MS/MSD RPD from 0-4%, (Dissolv# W425150, 6/30)RPD from 0-3%;

NH3, NO3/NO2-N @ 1.8%; tot-Alkalinity, Phos., TDS, Anions; Sample not identified – Batch QC for all analytes. No Qualifications applied.

8. Laboratory Control Samples, Blank Spikes (Check all that apply)...

- LCS %R 70-130%, [50-150% for Ag, Sb]: ACCEPTED
 LCS %R 40-69% or >130%, results >MDL: estimated (J/J+)
 LCS %R 40-69% and results <MDL: estimated (UJ)
 LCS %R <40% and all results rejected (R/UR)
- LCS %R >150% and all results rejected (R)
 LCS %R Ag, Sb, <20% and all results rejected
 LCS %R Ag, Sb, >170% and all results rejected

Comments/Qualified Results Metals, LCS ids: #W425147-BS1(TotRec), #W425150-BS1(Dissolv); Se LCS ids: #W425165 (TotRec); #W425167 (Dissolv);

Batch IDs: NH3 (W426077), NO3/NO2-N (W426086), tot-Alkalinity (W425170), Phos. (W427048), Anions (W426123); Recoveries: 95 – 107%.

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

9. Spike Recovery (Check all that apply).....

<input checked="" type="checkbox"/> Spike %R with 75-125%: ACCEPTED	<input type="checkbox"/> MS >125% and PDS <125%, detects > MDL est. (J)
<input type="checkbox"/> MS and PDS %R 30-74%, results > MDL est. (J-), ND=(UJ)	<input type="checkbox"/> MS and PDS %R <30% and <75%: results >MDL (J-) ND=(UR)
<input type="checkbox"/> MS <75% and PDS >75%, results > MDL est. (J), ND=(UJ)	<input type="checkbox"/> Field blanks used for spike analysis ?
<input type="checkbox"/> MS and PDS %R >125%, detects > MDL est. (J+)	<input type="checkbox"/> Post digest spk rqrnd when %R <75, >125%, except Ag
	<input type="checkbox"/> RPD % >20% Waters, >35% Soil – Qualif J / UJ

Comments/Qualified Results: Sample 14105 MS/MSD: (TotRec Metals #W425150), 86-122% and RPD= 0-18%, (Dissolv Metals # W425147, 7/01), 93-118%, RPD from 0-14%; Se MS/MSD; (TotRec #W425165), 97-100% RPD= 1-2%; (Dissolv # W425167) 93-93%; Se PDS; 97-105%

Inorganics Batch IDs: NH3 (W426077), NO3/NO2-N (W426086), Phos. (W427048), Anions (W426123) for MS/MSD. RPD Sample not identified for all analytes – Batch QC. No Qualifications applied.

10. GFAA Performance, MSA, or Serial Dilutions.....

<input type="checkbox"/> GFAA Duplicate injection RSD <20%: ACCEPTED	<input type="checkbox"/> SD Analytes >50X MDL ?
<input type="checkbox"/> GFAA Duplicate injection RSD >20%, results > CRDL estimated (J)	<input type="checkbox"/> SD % Diff < 10%
<input type="checkbox"/> Analytical spike %R 85-115%	<input type="checkbox"/> SD % Diff > 10%: J results >MDL, UJ for Non-detects
<input type="checkbox"/> Analytical spike %R 40-85%, results > IDL estimated (J)	
<input type="checkbox"/> Analytical spike %R 10-40%, results <IDL estimated (UJ)	
<input type="checkbox"/> Analytical spike %R <10%, results <IDL rejected (R)	

Comments/Qualified Results: Serial Dilution: Rslts >50X MDL; Se Dissolv #W425167-L1 @ 8%; TotRecov #W425165-L1 @ 16%; Total Fraction result Qualified as estimated "J" due to potential matrix effects.

Acceptable: YES NO

11. Detection Limits, Other QC.....

Comments/Qualified Results: MDLs: Cd 0.68, Ca 29.0, Mg 90, Mn 1.3, Mo 2.7, K 170, Na 65.0, V 1.7, Zn 3.2 ug/L; Se, 0.23 ug/L;

12. Data Verification and Overall Assessment.....

Comments/Qualified Results: Total Recoverable: Smpls -01 thru -07 confirmed. Selenium: Confirmed; Dissolv fraction results confirmed with Raw Data files, Analytical run 14181B / Dissolv Fraction prep #W425150 on 6-30-2014.
Alk, NH3, Anions,

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

GOLDER PROJECT #: 913-1101.004	ph .001	5011	Monsanto, Soda Springs, ID
LABORATORY	SVL Analytical, Inc.	DC	#W4F0346
SAMPLES	COLLECTED	VIA RIM	
14101, 14095, 14097, 14096, 14098 (5 Samples)	6-12-2014	WATER	
[No Splits, No Field Duplic, No Field Blanks]			

DATA ASSESSMENT SUMMARY

REVIEW ITEM	ICP/AES	ICP/MS	NH ₃	NO ₂ /NO ₃	ALK, CO ₂ , HCO ₃	Anion	TDS, TSS	Tot-Phos, TOC
1. Data Completeness	O	O	O	O	O	O	O	O
2. Preservation / Holding Times	O	O	O	O	O	O	O	O
3. Calibration/ ICP/MS Tune	O	X	O	O	O	O	O	O
4. ICP/MS Internal Stnds. (1)	-	X	-	-	-	-	-	-
5. Interference Checks	O	O	-	-	-	-	-	-
6. Blanks, Field Blanks	O	O	O	O	O	O	O	O
7. Lab Duplicate/ F. Duplic RPD	O	O	O	O	O	O	O	O
8. LCS, Blank Spike, MFS	O	O	O	O	O	O	O	O
9. Matrix Spike, MSD	O	O	O	O	-	O	-	O
10. GFAA, MSA, Serial Dil.	-	O	-	-	-	-	-	-
11. Detection Limits, Other QC	O	O	O	O	O	O	O	O
12. Data Verification, Overall Summary	O	O	O	O	O	O	O	O

O = Data had no problems

⊖ = Problems, but do not affect data

X = Data qualified due to minor problems [typically estimated data (J or UJ)].

M = Data qualified due to major problems [typically more than 50% qualified (J/UJ)].

Z = Data unacceptable [typically data rejected (R)].

Comments/Qualified Results:

(1) Indium as internal standard recovery is low. Assoc. result for Sample 14097 (MC-1 Mormon Crk) Qualification as estimated "J" for Selenium (Total Recov.).

Validated by:

Jill L. Feltner
JLF

Reviewed by:

Date: Aug. 22, 2014
Date: 9/19/2014

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

1. Date Package Completeness (Check if present).....

- Case narrative
- Chain of Custody
- Sample Results
- ICV/CCV Results
- Blank Results
- ICP Interference Check Results

- Spike Recovery Results
- Duplicate Results
- LOS Results
- Standard Addition Results
- ICP Serial Dilution
- Instrument Det. Limits
- ICP Correction Factor

- ICP Linear Ranges
- Preparation Logs
- Analysis Run Logs
- ICP Raw Data
- GFAA Raw Data
- Hg Raw Data
- Cyanide Raw Data

Other _____
 Acceptable
 Absent
 Not required for data package requested.

Comments/Qualified Results: Sample receipt @ 3.4 deg C. 5 Samples.
Preservation complete.

2. Holding Times (Check all that apply).....

- ICP/GFAA metals completed in <6 months from collection
- Mercury analyzed in <28 days from collection
- Cyanide completed in 14 days from collection

Comments/Qualified Results: See Holding Time summary Table A1-SDG#

W4F0346. No Qualifications applied. Sample Prep: Metals Batch# W425146

(6/23TotRecov), W425151 6/29(Dissolv); Se # W425163 (6/23TotRecov), W425164

(6/23 Dissolv);

Inorg: NH3, W426077; NO2,3, W426086; Alk, W425170; TDS, W425190;
Phos, W427048; Anions, W426171;

3. Calibrations (Check all that apply).....

- ICV/CCV %R for ICP/AA & ICP/MS, 90%-110%, acceptable
- ICV/CCV %R for ICP/AA, 75%-89% or 111%-125%, results estimated (J/UJ)
- ICV/CCV %R for ICP/AA, <75% or >125%, reject positive results (R)

- ICV/CCV %R for ICP/MS 80-120% for Hg, results accepted
- CRDL Check Stnd %R 70 - 130, (50-150 SbPbTl)
- ICV/CCV %R for Hg, 65%-79% or 121%-135%, results estimated (J/UJ)
- ICP/MS TUNE: Isotope RSD % <5 %

Comments/Qualified Results: ✓ Metals, 6-29-14, Thermo; ✓ Se, 7-01-14,
PerkinElmer; ✓ CRDL: Metals, 6-29; Se, 7-01.

Standards: CRDL(CRI) for ICP-AES✓, Se✓; ICS solution for ICP✓ & Se✓; ICP/MS Tune (7/01) ✓;

Anions: ✓ $r^2 > 0.995$, 5-30-14; ✓
NH3; 7-01-14, $r^2 = 0.9997$, TKN, 7-02-14, 0.9999 ✓ NO2/NO3: 7-02-14, $r^2 = 0.99994$,
✓ Phos: 6-30-14, $r^2 = 0.9999$; ✓ TOC: 6-12-2014, $r^2 = 1.000$; TDS, 6/18;

4. Internal Standards (ICP/MS ONLY - Check all that apply).....

- Appropriate ISTD used for m/z isotopes required; eg, Sc, Ho, Ge, In, Li+6, or Au, (Y, Rh, Tb, Bi, or Lu); Within 40 amu.
- ISTD at least 70% recovery of Counts from the ICB reference [Method reference]
- ISTD between 60% to 125% recovery met? [DV reference]

- Sample or QC run at a 2X dilution for failed %RI? **NONE**
- If ISTD not within criteria, and not re-run @ 2X dilution, then J/UJ for associated element isotopes.
- If ISTD not included to analyses, or element isotopes not associated with required ISTD, reject ('R) sample results.

Comments/Qualified Results: Se, 7-01-14, In, Ga, @ 67-104% (Dissolv) ✓, @ 51-98% (TotRecov) X 14097 @ 51%, no reanalyze performed - Qual. Applied (193 ug/L J) for 14097 Total Recoverable result only.

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

5. Interference Checks (Check all that apply).....

- ICS A/B Recoveries Acceptable
 Al, Ca, Fe, Mg sample concentrations > ICS concentrations
 ICS %R > 120%, results >IDL estimated (J)
- ICS %R 50-79%, results >IDL estimated (J)
 ICS %R 50-79%, results <IDL estimated (UJ)
 ICS %R <50%, results >IDL and <IDL rejected (R/UR)

Comments/Qualified Results: Metals 6-29@0824 and @ 1049; Se 7-01-14 @0831.

6. Lab Blanks, Field Blanks (Check all that apply).....

- Detects reported in ICB/CCB list:
 Detects in preparation blanks, list:
 Detects in field blanks, list

Field Blank ID: None
Lab Blank ID: NA

Qualified as undetected (U) all sample concentrations \leq 10X any associated blank concentrations and less than the PQL, or J+ for samples greater than the PQL.

Comments/Qualified Results: ICB: 6-29Metals, and 7-01Se. CCB: Metals ND, Se all ND @ MDL. Prep. Blanks Metals, (Batch W425151 Disslv, W425146 TotRecov); Se (Batch W425164 Disslv, W425163 TotRecov).

Method Blanks: NH3(W426077), NO3/NO2-N(W426086), tot-Alkalinity(W425170), TDS(W425190), Phos. (W427048), Anions(W426171), all ND @MRL

7. Lab Duplicates, Field Duplicates (Check all that apply).....

- Duplicate RPD \leq 20% for waters (\leq 35% for soils) for results >5X CRDL
 Duplicate range is within \pm CRDL (\pm 2X CRDL for soils) for results <5X CRDL

Field Duplicate ID_14101

Comments/Qualified Results Sample 14101: Metals, Se ranging from 0 to 3% in MS-MSD (spiked level samples).

NH3, NO3/NO2-N; tot-Alkalinity, Phos., TDS, Anions; Sample not identified – Batch QC for all analytes. No Qualifications applied.

8. Laboratory Control Samples, Blank Spikes (Check all that apply)...

- LCS %R 70-130%, [50-150% for Ag, Sb]: ACCEPTED
 LCS %R 40-69% or >130%, results >MDL: estimated (J-J+)
 LCS %R 40-69% and results <MDL: estimated (UJ)
 LCS %R <40% and all results rejected (R/UR)
- LCS %R >150% and all results rejected (R)
 LCS %R Ag, Sb, <20% and all results rejected
 LCS %R Ag, Sb, >170% and all results rejected

Comments/Qualified Results Metals, LCS id: W425146-BS1 Dissolv; W425151-BS1 TotRecov.; Se, (Batch W425164 Disslv, W425163 TotRecov); NH3, NO3/NO2-N, tot-Alkalinity, Phos. TOC, Anions; (Batch IDs respectively: W426077, W426086, W425170, W427048, W426171)

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

9. Spike Recovery (Check all that apply).....

- Spike %R with 75-125%: ACCEPTED
- MS and PDS %R 30-74%, results > MDL est. (J-), ND=(UJ)
- MS <75% and PDS >75%, results > MDL est. (J), ND=(UJ)
- MS and PDS %R >125%, detects > MDL est. (J+)
- MS >125% and PDS <125%, detects > MDL est. (J)
- MS and PDS %R <30% and <75%: results >MDL (J-) ND=(UR)
- Field blanks used for spike analysis ?
- Post digest spk rqr when %R <75, >125%, excep Ag
- RPD % >20% Waters, >35% Soil – Qualif J / UJ

Comments/Qualified Results: Sample 14101: ✓ Metals & Se Dissolved, 61/101% and RPD=3%; ✓ Metals & Se TotRecov, 88/107% and RPD=3%; ✓ Se PDS, 94/97%; Ca @ 61% Mg @ 64% - @ >4x Spk Level - NO Qual. ✓ NH3 (W426077), NO3/NO2-N(W426086), tot-Phos (W427048), Anions(W426171) for MS/MSD. ✓ RPD Sample not identified for all analytes – Batch QC. No Qualifications applied.

10. GFAA Performance, MSA, or Serial Dilutions.....

- JA
- GFAA Duplicate injection RSD <20%: ACCEPTED
 - GFAA Duplicate injection RSD >20%, results > CRDL estimated (J)
 - Analytical spike %R 85-115%
 - Analytical spike %R 40-85%, results > IDL estimated (J)
 - Analytical spike %R 10-40%, results <IDL estimated (UJ)
 - Analytical spike %R <10%, results <IDL rejected (R)
 - SD Analytes >50X MDL ? ALL "ND".
 - SD % Diff < 10%
 - SD % Diff > 10%: J results >MDL, UJ for Non-detects

Comments/Qualified Results: ✓ Se SD #W425163-L1 & #W425164-L1 ; Smpl

Rslts are ND and SD cannot be calculated; No Qual. applied

Acceptable: YES NO

11. Detection Limits, Other QC.....

Comments/Qualified Results: ✓ MDLs: Cd 0.68, Ca 29.0, Mg 90, Mn 1.3, Mo 2.7, K 170, Na 65.0, V 1.7, Zn 3.2 ug/L; Se, 0.23 ug/L;

12. Data Verification and Overall Assessment.....

Comments/Qualified Results:

TABLE A-1: HOLDING TIME SUMMARY / SDG# W4F0347

LabSampleNo	ClientId	Method	Analyte	Fraction	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0346-01	14101	EPA 300.0	Anions		6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0346-02	14095	EPA 300.0	Anions		6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0346-03	14097	EPA 300.0	Anions		6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0346-04	14096	EPA 300.0	Anions		6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
W4F0346-05	14098	EPA 300.0	Anions		6/12/2014	6/26/2014	6/26/2014	14	14	28	Accept
LabSampleNo	ClientId	Method	Analyte	Fraction	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0346-01	14101	EPA 350.1	Ammonia as N		6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346-02	14095	EPA 350.1	Ammonia as N		6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346-03	14097	EPA 350.1	Ammonia as N		6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346-04	14096	EPA 350.1	Ammonia as N		6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346-05	14098	EPA 350.1	Ammonia as N		6/12/2014	7/1/2014	7/1/2014	19	19	28	Accept
W4F0346-01	14101	EPA 353.2	Nitrate/Nitrite as N		6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0346-02	14095	EPA 353.2	Nitrate/Nitrite as N		6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0346-03	14097	EPA 353.2	Nitrate/Nitrite as N		6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0346-04	14096	EPA 353.2	Nitrate/Nitrite as N		6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
W4F0346-05	14098	EPA 353.2	Nitrate/Nitrite as N		6/12/2014	6/24/2014	7/2/2014	12	20	28	Accept
LabSampleNo	ClientId	Method	Analyte	Fraction	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0346-01	14101	EPA 6010B	Metals	Dissolved	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346-02	14095	EPA 6010B	Metals	Dissolved	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346-03	14097	EPA 6010B	Metals	Dissolved	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346-04	14096	EPA 6010B	Metals	Dissolved	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346-05	14098	EPA 6010B	Metals	Dissolved	6/12/2014	6/29/2014	6/29/2014	17	17	180	Accept
W4F0346-01	14101	EPA 6010B	Metals	Total Recoverable	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346-02	14095	EPA 6010B	Metals	Total Recoverable	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346-03	14097	EPA 6010B	Metals	Total Recoverable	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346-04	14096	EPA 6010B	Metals	Total Recoverable	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346-05	14098	EPA 6010B	Metals	Total Recoverable	6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
LabSampleNo	ClientId	Method	Analyte	Fraction	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0346-01	14101	EPA 6020	Selenium	Dissolved	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346-02	14095	EPA 6020	Selenium	Dissolved	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346-03	14097	EPA 6020	Selenium	Dissolved	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346-04	14096	EPA 6020	Selenium	Dissolved	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346-05	14098	EPA 6020	Selenium	Dissolved	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346-01	14101	EPA 6020	Selenium	Total Recoverable	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346-02	14095	EPA 6020	Selenium	Total Recoverable	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346-03	14097	EPA 6020	Selenium	Total Recoverable	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346-04	14096	EPA 6020	Selenium	Total Recoverable	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept
W4F0346-05	14098	EPA 6020	Selenium	Total Recoverable	6/12/2014	6/23/2014	7/1/2014	11	19	180	Accept

LabSampleNo	ClientId	Method	Analyte	Fraction	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0346-01	14101	SM 2320B	Total Alkalinity		6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
W4F0346-02	14095	SM 2320B	Total Alkalinity		6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
W4F0346-03	14097	SM 2320B	Total Alkalinity		6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
W4F0346-04	14096	SM 2320B	Total Alkalinity		6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
W4F0346-05	14098	SM 2320B	Total Alkalinity		6/12/2014	6/18/2014	6/19/2014	6	7	14	Accept
LabSampleNo	ClientId	Method	Analyte	Fraction	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0346-01	14101	SM 2340B	Hardness		6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346-02	14095	SM 2340B	Hardness		6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346-03	14097	SM 2340B	Hardness		6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346-04	14096	SM 2340B	Hardness		6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
W4F0346-05	14098	SM 2340B	Hardness		6/12/2014	6/23/2014	6/29/2014	11	17	180	Accept
LabSampleNo	ClientId	Method	Analyte	Fraction	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0346-01	14101	SM 2540 C	Total Diss. Solids		6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0346-02	14095	SM 2540 C	Total Diss. Solids		6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0346-03	14097	SM 2540 C	Total Diss. Solids		6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0346-04	14096	SM 2540 C	Total Diss. Solids		6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
W4F0346-05	14098	SM 2540 C	Total Diss. Solids		6/12/2014	6/18/2014	6/18/2014	6	6	7	Accept
LabSampleNo	ClientId	Method	Analyte	Fraction	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0346-01	14101	SM 4500-P-E	Phosphorus	Total	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept
W4F0346-02	14095	SM 4500-P-E	Phosphorus	Total	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept
W4F0346-03	14097	SM 4500-P-E	Phosphorus	Total	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept
W4F0346-04	14096	SM 4500-P-E	Phosphorus	Total	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept
W4F0346-05	14098	SM 4500-P-E	Phosphorus	Total	6/12/2014	6/30/2014	6/30/2014	18	18	28	Accept

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

GOLDER PROJECT #: 913-1101.004 ph .001	11	Monsanto, Soda Springs, ID
SVL Analytical, Inc.	100	#W4F0347
14076, 14082, 14074 (3 Samples)	6-10-2014	WATER
14086, 14089, 14083, 14091, 14088, 14084 (6 Samples)	6-11-2014	WATER
14125 (1 Samples)	6-14-2014	WATER
✓ - Stud Analyte list + TSS + TOC.		

DATA ASSESSMENT SUMMARY

REVIEW ITEM	ICP/AES	ICP/MS	NH ₃	NO ₂ /NO ₃	ALK, CO ₂ , HCO ₃	Anion	TDS, TSS	Tot-Phos. TOC ✓
1. Data Completeness	○	○	○	○	○	○	○	○
2. Preservation / Holding Times	○	○	○	○	○	○	○	○
3. Calibration/ ICP/MS Tune	○	○	○	○	-	○	-	○
4. ICP/MS Internal Stnds.	-	○	-	-	-	-	-	-
5. Interference Checks	○	○	-	-	-	-	-	-
6. Blanks, Field Blanks	○	○	○	○	○	○	○	○
7. Lab Duplicate/ F. Duplic RPD (1)	○	X	○	○	○	○	○	○
8. LCS, Blank Spike, MFS	○	○	○	○	○	○	○	○
9. Matrix Spike, MSD (2)	○	X	○	○	-	○	-	-
10. GFAA, MSA, Serial Dil.	-	○	-	-	-	-	-	-
11. Detection Limits, Other QC	○	○	○	○	○	○	○	○
12. Data Verification, Overall Summary	○	○	○	○	○	○	○	○

○ = Data had no problems

⊖ = Problems, but do not affect data

X = Data qualified due to minor problems [typically estimated data (J or UJ)].

M = Data qualified due to major problems [typically more than 50% qualified (J/UJ)].

Z = Data unacceptable [typically data rejected (R)].

Comments/Qualified Results:

(1) Se duplicate RPD exceeds 20% : Assoc. result for 14076 qualified "J" (Total)

(2) MSD & % RPD out for Se : Smpl. 14076 qualif. "J" (Total)

(3) Field split % RPD out for NO₂/NO₃ : Smpl. 14076, qual. 'J'

→ no qual applied. Advisory only

Validated by:

Jamie Sapp

Reviewed by:

Jill Johnson

Date: Aug. 21, 2014

Date: 9/19/2014

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

1. Date Package Completeness (Check if present).....

- | | | | |
|--------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------|
| <input checked="" type="checkbox"/> Case narrative | <input checked="" type="checkbox"/> Spike Recovery Results | <input checked="" type="checkbox"/> ICP Linear Ranges | Other _____ |
| <input checked="" type="checkbox"/> Chain of Custody | <input checked="" type="checkbox"/> Duplicate Results | <input checked="" type="checkbox"/> Preparation Logs | ! Acceptable |
| <input checked="" type="checkbox"/> Sample Results | <input checked="" type="checkbox"/> LCS Results | <input checked="" type="checkbox"/> Analysis Run Logs | X Absent |
| <input checked="" type="checkbox"/> ICV/CCV Results | <input checked="" type="checkbox"/> Standard Addition Results | <input checked="" type="checkbox"/> ICP Raw Data | o Not required for data package requested. |
| <input checked="" type="checkbox"/> Blank Results | <input checked="" type="checkbox"/> ICP Serial Dilution | <input checked="" type="checkbox"/> GFAA Raw Data | |
| <input checked="" type="checkbox"/> ICP Interference Check Results | <input checked="" type="checkbox"/> Instrument Det. Limits | <input checked="" type="checkbox"/> Hg Raw Data | |
| | <input checked="" type="checkbox"/> ICP Correction Factor | <input checked="" type="checkbox"/> Cyanide Raw Data | |

Comments/Qualified Results: Sample recpt @ 3.5 deg C. Preservation

2. Holding Times (Check all that apply).....

- ICP/GFAA metals completed in <6 months from collection
 Mercury analyzed in <28 days from collection
 Cyanide completed in 14 days from collection

Comments/Qualified Results: See Holding Time summary Table A1-SDG#

W4F0347. No Qualifications applied. Sample Prep: Metals Batch# W425145, Se # W425162, Al,Fe,Mn # W425213;

3. Calibrations (Check all that apply).....

- ICV/CCV %R for ICP/AA & ICP/MS, 90%-110%, acceptable
 ICV/CCV %R for ICP/AA, 75%-89% or 111%-125%, results estimated (J/UJ)
 ICV/CCV %R for ICP/AA, <75% or >125%, reject positive results (R)
- ICV/CCV %R for ICP/MS 80-120% for Hg, results accepted
 CRDL Check Stnd %R 70 - 130, (50-150 SbPbTi)
 ICV/CCV %R for Hg, 65%-79% or 121%-135%, results estimated (J/UJ)
 ICP/MS TUNE: Isotope RSD % <5 %

Comments/Qualified Results: ✓ Al, Fe, Mn, 7-1-14, Thermo; ✓ Metals, 6-30-14, Optima; Si, 7-09; ✓ Se, 7-14-14, Agilent;

✓ CRDL: Mn, 6-30; Metals, 6-30; Se, 7-14.

✓ Standards: ICP-AES, CRDL, ICS solution, ICP/MS Tune

Anions: ✓ r₂ > 0.995, 5-30-14; ✓ NH₃; 7-01-14, r₂ = 0.9997, ✓ NO₂/NO₃: 7-02-14, r₂ = 0.99994., ✓ Phos: 7-01-14, r₂ = 0.9999; ✓ TOC: 6-12-2014, r₂ = 1.000;

4. Internal Standards (ICP/MS ONLY - Check all that apply).....

- Appropriate ISTD used for m/z isotopes required; eg, Sc, Ho, Ge, In, Li+6, or Au, (Y, Rh, Tb, Bi, or Lu), Within 40 amu.
 ISTD at least 70% recovery of Counts from the ICB reference [Method reference]
 ISTD between 60% to 125% recovery met? [DV reference]
- Sample or QC run at a 2X dilution for failed %RI ?
 If ISTD not within criteria, and not re-run @ 2X dilution, then J/UJ for associated element isotopes.
 If ISTD not included to analyses, or element isotopes not associated with required ISTD, reject ('R) sample results.

Comments/Qualified Results: ✓ Se, 7-14-14, In, Ga, @ 61-111%.

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

5. Interference Checks (Check all that apply).....

- ICS A/B Recoveries Acceptable
 Al, Ca, Fe, Mg sample concentrations > ICS concentrations
 ICS %R > 120%, results >IDL estimated (J)
 ICS %R 50-79%, results >IDL estimated (J)
 ICS %R 50-79%, results <IDL estimated (UJ)
 ICS %R <50%, results >IDL and <IDL rejected (R/UR)

Comments/Qualified Results: Metals 6-30@ 1437; Al,Fe,Mn. 7-1-14
@ 1411; Se 7-14-14 @ 1051.

6. Lab Blanks, Field Blanks (Check all that apply).....

- Detects reported in ICB/CCB list:
 Detects in preparation blanks, list:
 Detects in field blanks, list

Field Blank ID: None
Lab Blank ID: NA

Qualified as undetected (U) all sample concentrations \leq 10X any associated blank concentrations and less than the PQL, or J+ for samples greater than the PQL.

Comments/Qualified Results: ICB: Al, Fe, Mn, Metals, Si, Na, Se. CCB: Ca detect @ 14:36 not assoc. w/smples. ICB & CCB-All others ND @ MDL; Se all ND @ MDL.

Prep. Blanks (BLNK-1): Si, Metals, Al,Fe,Mn, Se.
 NH3(W426076), NO3/NO2-N(W426085), tot-Alkalinity(W425172),
TDS(W425191), TSS(W425196), Phos. (W427064) TOC(W425306), Anions(W426139),
all ND @ MRL

7. Lab Duplicates, Field Duplicates (Check all that apply).....

- Duplicate RPD \leq 20% for waters (\leq 35% for soils) for results >5X CRDL
 Duplicate range is within \pm CRDL (\pm 2X CRDL for soils) for results <5X CRDL

Field Duplicate ID: None

Comments/Qualified Results Sample 14076: Metals ranging from 0 to 3%
 Se @ 24%. ~~Se result qualif. "J" for Smpl. 14076 only.~~

NH3, NO3/NO2-N; tot-Alkalinity, Phos., TDS, Anions; Sample not identified – Batch QC for all analytes. No Qualifications applied.

Field Split on 14076/14077: all ok except NO₂/NO₃ (RPD=61.7%). Qual J jsr
↳ No qual applied. Advisory only

8. Laboratory Control Samples, Blank Spikes (Check all that apply).....

- LCS %R 70-130%, [50-150% for Ag, Sb]: ACCEPTED
 LCS %R 40-69% or >130%, results >MDL: estimated (J/J+)
 LCS %R 40-69% and results <MDL: estimated (UJ)
 LCS %R <40% and all results rejected (R/UR)
 LCS %R >150% and all results rejected (R)
 LCS %R Ag, Sb, <20% and all results rejected
 LCS %R Ag, Sb, >170% and all results rejected

Comments/Qualified Results Metals, LCS id: W425145-BS1
 Se, #W425162; Al,Fe, Mn, Si #W425213;
 NH3, NO3/NO2-N, tot-Alkalinity, Phos. TOC, Anions; (Batch IDs respectively:
W426076, W426085, W425172, W427064, W425306, W426139)

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES

NO

9. Spike Recovery (Check all that apply).....

- Spike %R with 75-125%: ACCEPTED
 MS and PDS %R 30-74%, results > MDL est. (J-), ND=(UJ)
 MS <75% and PDS >75%, results > MDL est. (J), ND=(UJ)
 MS and PDS %R >125%, detects > MDL est. (J+)
- MS >125% and PDS <125%, detects > MDL est. (J)
 MS and PDS %R <30% and <75%: results >MDL (J-) ND=(UR)
 Field blanks used for spike analysis ?
 Post digest spk rqrnd when %R <75, >125%, excpt Ag
 RPD % >20% Waters, >35% Soil – Qualif J / UJ

Comments/Qualified Results: Sample 14076: ✓ Metals 88/118% and RPD=3%;

Se; MS/MSD; rpd=27%; ✓ Se PDS; Assoc. result Qualif "J"

NH3 (W426076), NO3/NO2-

N(W426085), tot-Phos (W427064), Anions(W426139) for MS/MSD. ✓ RPD

Sample not identified for all analytes – Batch QC. No Qualifications applied.

10. GFAA Performance, MSA, or Serial Dilutions.....

- GFAA Duplicate injection RSD <20%: ACCEPTED
 GFAA Duplicate injection RSD >20%, results > CRDL estimated (J)
Analytical spike %R 85-115%
Analytical spike %R 40-85%, results > IDL estimated (J)
Analytical spike %R 10-40%, results <IDL estimated (UJ)
Analytical spike %R <10%, results <IDL rejected (R)
- SD Analytes >50X MDL ?
SD % Diff < 10%
SD % Diff > 10%: J results >MDL, UJ for Non-detects

Comments/Qualified Results: ✓ Se SD #W425162-L1 ; Rslts <50X MDL, No Qual.

Acceptable: YES NO

11. Detection Limits, Other QC.....

Comments/Qualified Results: ✓ MDLs: Se, 0.23 ug/L; Cd 0.68, Ca 29.0, Mg 90, Mo 2.7, K 170, Na 65.0, V 1.7, Zn 3.2 ug/L; Al 36.0, Fe 23.0, Mn 1.3 ug/L; Si 74ug/L;

12. Data Verification and Overall Assessment.....

Comments/Qualified Results:

TABLE A-1: HOLDING TIME SUMMARY / SDG# W4F0347

LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-01	14076	EPA 300.0	Anions	6/10/2014	6/25/2014	6/25/2014	15	15	28	Accept
W4F0347-02	14082	EPA 300.0	Anions	6/10/2014	6/25/2014	6/25/2014	15	15	28	Accept
W4F0347-03	14086	EPA 300.0	Anions	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0347-04	14089	EPA 300.0	Anions	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0347-05	14074	EPA 300.0	Anions	6/10/2014	6/25/2014	6/25/2014	15	15	28	Accept
W4F0347-06	14083	EPA 300.0	Anions	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0347-07	14091	EPA 300.0	Anions	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0347-08	14088	EPA 300.0	Anions	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0347-09	14084	EPA 300.0	Anions	6/11/2014	6/25/2014	6/25/2014	14	14	28	Accept
W4F0347-10	14125	EPA 300.0	Anions	6/14/2014	6/25/2014	6/25/2014	11	11	28	Accept
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-01	14076	EPA 350.1	Ammonia as N	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347-02	14082	EPA 350.1	Ammonia as N	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347-03	14086	EPA 350.1	Ammonia as N	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-04	14089	EPA 350.1	Ammonia as N	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-05	14074	EPA 350.1	Ammonia as N	6/10/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-06	14083	EPA 350.1	Ammonia as N	6/11/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347-07	14091	EPA 350.1	Ammonia as N	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-08	14088	EPA 350.1	Ammonia as N	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-09	14084	EPA 350.1	Ammonia as N	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-10	14125	EPA 350.1	Ammonia as N	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-01	14076	EPA 353.2	Nitrate/Nitrite as N	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0347-02	14082	EPA 353.2	Nitrate/Nitrite as N	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0347-03	14086	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347-04	14089	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347-05	14074	EPA 353.2	Nitrate/Nitrite as N	6/10/2014	6/24/2014	7/2/2014	14	22	28	Accept
W4F0347-06	14083	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347-07	14091	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347-08	14088	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347-09	14084	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13	21	28	Accept
W4F0347-10	14125	EPA 353.2	Nitrate/Nitrite as N	6/14/2014	6/24/2014	7/2/2014	10	18	28	Accept

LabSampleNo	ClientId	Method	Metal Analytes	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-01	14076	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0347-02	14082	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0347-03	14086	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-04	14089	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-05	14074	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0347-06	14083	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-07	14091	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-08	14088	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-08	14088	EPA 6010B	Aluminum	6/11/2014	7/1/2014	7/1/2014	20	20	180	Accept
W4F0347-08	14088	EPA 6010B	Iron	6/11/2014	7/1/2014	7/1/2014	20	20	180	Accept
W4F0347-08	14088	EPA 6010B	Silica	6/11/2014	7/1/2014	7/9/2014	20	28	180	Accept
W4F0347-09	14084	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-10	14125	EPA 6010B	Cd,Ca,Mg,Mn,Mo,K,Na,V,Zn	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-01	14076	EPA 6020	Selenium	6/10/2014	6/25/2014	7/14/2014	15	34	180	Accept
W4F0347-02	14082	EPA 6020	Selenium	6/10/2014	6/25/2014	7/14/2014	15	34	180	Accept
W4F0347-03	14086	EPA 6020	Selenium	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0347-04	14089	EPA 6020	Selenium	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0347-05	14074	EPA 6020	Selenium	6/10/2014	6/25/2014	7/14/2014	15	34	180	Accept
W4F0347-06	14083	EPA 6020	Selenium	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0347-07	14091	EPA 6020	Selenium	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0347-08	14088	EPA 6020	Selenium	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0347-09	14084	EPA 6020	Selenium	6/11/2014	6/25/2014	7/14/2014	14	33	180	Accept
W4F0347-10	14125	EPA 6020	Selenium	6/14/2014	6/25/2014	7/14/2014	11	30	180	Accept
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-01	14076	SM 2320B	Total Alkalinity	6/10/2014	6/19/2014	6/19/2014	9	9	14	Accept
W4F0347-02	14082	SM 2320B	Total Alkalinity	6/10/2014	6/19/2014	6/19/2014	9	9	14	Accept
W4F0347-03	14086	SM 2320B	Total Alkalinity	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0347-04	14089	SM 2320B	Total Alkalinity	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0347-05	14074	SM 2320B	Total Alkalinity	6/10/2014	6/19/2014	6/19/2014	9	9	14	Accept
W4F0347-06	14083	SM 2320B	Total Alkalinity	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0347-07	14091	SM 2320B	Total Alkalinity	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0347-08	14088	SM 2320B	Total Alkalinity	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0347-09	14084	SM 2320B	Total Alkalinity	6/11/2014	6/19/2014	6/19/2014	8	8	14	Accept
W4F0347-10	14125	SM 2320B	Total Alkalinity	6/14/2014	6/19/2014	6/19/2014	5	5	14	Accept

LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-01	14076	SM 2340B	Hardness	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0347-02	14082	SM 2340B	Hardness	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0347-03	14086	SM 2340B	Hardness	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-04	14089	SM 2340B	Hardness	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-05	14074	SM 2340B	Hardness	6/10/2014	6/25/2014	6/30/2014	15	20	180	Accept
W4F0347-06	14083	SM 2340B	Hardness	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-07	14091	SM 2340B	Hardness	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-08	14088	SM 2340B	Hardness	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-09	14084	SM 2340B	Hardness	6/11/2014	6/25/2014	6/30/2014	14	19	180	Accept
W4F0347-10	14125	SM 2340B	Hardness	6/14/2014	6/25/2014	6/30/2014	11	16	180	Accept
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-01	14076	SM 2540 C	Total Diss. Solids	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0347-02	14082	SM 2540 C	Total Diss. Solids	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0347-03	14086	SM 2540 C	Total Diss. Solids	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0347-04	14089	SM 2540 C	Total Diss. Solids	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0347-05	14074	SM 2540 C	Total Diss. Solids	6/10/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0347-06	14083	SM 2540 C	Total Diss. Solids	6/11/2014	6/17/2014	6/17/2014	7	7	7	Accept
W4F0347-07	14091	SM 2540 C	Total Diss. Solids	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0347-08	14088	SM 2540 C	Total Diss. Solids	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0347-09	14084	SM 2540 C	Total Diss. Solids	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept
W4F0347-10	14125	SM 2540 C	Total Diss. Solids	6/14/2014	6/18/2014	6/18/2014	4	4	7	Accept
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-01	14076	SM 4500-P-B	Phosphorus	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347-02	14082	SM 4500-P-B	Phosphorus	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347-03	14086	SM 4500-P-B	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-04	14089	SM 4500-P-B	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-05	14074	SM 4500-P-B	Phosphorus	6/10/2014	7/1/2014	7/1/2014	21	21	28	Accept
W4F0347-06	14083	SM 4500-P-B	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-07	14091	SM 4500-P-B	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-08	14088	SM 4500-P-B	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-09	14084	SM 4500-P-B	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20	20	28	Accept
W4F0347-10	14125	SM 4500-P-B	Phosphorus	6/14/2014	7/1/2014	7/1/2014	17	17	28	Accept
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0347-08	14088	SM 5310B	Total Organic Carbon	6/11/2014	6/20/2014	6/20/2014	9	9	28	Accept
W4F0347-08	14088	SM 2540 D	Total Susp. Solids	6/11/2014	6/18/2014	6/18/2014	7	7	7	Accept



Golder
Associates

SUBJECT		MONSANTO - W4FO347		
Job No.	Ref.	Made By Checked Reviewed	TJG	Date Sheet of

ICAL ICV 6-30 @ 1411 ✓, CCV 6-30 1433, 1547, 1600, 1701, 1719

Nz 1814, 1837, 1903 - 6/30 ✓

1729, 1739.

Al, Fe, Mn 1352, 1444, 1538 - 7/01 ✓

Si 7/09 ✓

Se 7/14 ✓

CRI (GRDL Stnd) Low Level - 50 = 50% ✓ 70-130% ✓
Metals, Se, Nz, Fe, Al, Mn

ICB 6-30 @ 1416 ND Metals, Nz, Al, Fe, Mn, Si, Se ✓

Metals CCB 6-30 @ 1436, 1444, 1552, 1603, 1703, 1733, 1743.
~~CAS~~

Nz 6-30 @ 1820, 1837, 1906

Al, Fe, Mn 7-01 @ 1417, 1541

Si 7-09 @

Se 7-14 @

ICS A/AB: 80-120 ✓

MS/MSD Se 105/138 — RPD 27% PDS @ 104%

Metals 88/118 —

Metals: Thermos 6/30, 7/01

OPTIMA

PE ICPMS 7/14

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / Total Metals by EPA 6010B and 6020 (ICP/MS)												Lab: SVL, Idaho			Project: Monsanto					
Validated by:	<i>JL Farnheit</i>						Date: 9/19/2014			SDG: W4F0348			Proj. No.: 913-1101-004-001-IF							
Reviewed by:							Date:			Sample Collection Dates: 6/10, 12/2014										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 1.8°C																				
Login Receipt: ok																				
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.)	14078	14093	14100	14103	14099	10102														
Case Narrative: See next page																				
Completeness of Analyses:	A	A	A	A	A	A														
Preservation:	A	A	A	A	A	A														
Holding Times: Date Prepared: 6/25/2014, 7/1/2014 Date Analyzed: 6/30/2014, 7/1, 7, 8/2014	A	A	A	A	A	A														
ICP/AA ICV/CCV (90-110%):	A	A	A	A	A	A														
CRDL STD (50-150%)	A	A	A	A	A	A														
ICP Interference Check (80-120%):	A	A	A	A	A	A														
Internal Standards:	A	A	A	A	A	A														
ICP Serial Dilution (<10%D for >50X IDL):	A	A	A	A	A	A														
Method Blanks:	A	A	A	A	A	A														
LCS %R (80-120%):	A	A	A	A	A	A														
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	A	A	A	A	A	A														
MS/MSD:	A	A	A	A	A	A														
Reporting Limits:	A	A	A	A	A	A														
Completeness of Analyte List:	A	A	A	A	A	A														
Field Duplicate Pair:	NA	A	A	NA	A	NA														
Equipment/Field Blank:	NA	NA	NA	NA	NA	NA														

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / Dissolved Metals by EPA 6010B and 6020 (ICP/MS)

Lab: SVL, Idaho

Project: Monsanto

Validated by:

Jel Flanders

Date: 9/19/2014

Proj. No.: 913-1101-004-001-IF

Reviewed by:

Date:

Sample Collection Dates: 6/10, 12/2014

Cooler Temperature: 1.8°C

Login Receipt: ok

Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.

Case Narrative: See next page

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
--	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----

14078	14093	14100	14103	14099	10102
-------	-------	-------	-------	-------	-------

Completeness of Analyses:

A A A A A A

Preservation:

A A A A A A

Holding Times: Date Prepared: 6/25/2014, 7/1/2014
Date Analyzed: 6/30/2014, 7/1, 7, 8/2014

A A A A A A

ICP/AA ICV/CCV (90-110%):

A A A A A A

CRDL STD (50-150%)

A A A A A A

ICP Interference Check (80-120%):

A A A A A A

Internal Standards:

A A A A A A

ICP Serial Dilution (<10%D for >50X IDL):

A A A A A A

Method Blanks:

A A A A A A

LCS %R (80-120%):

A A A A A A

Lab Duplicate, ≤20% RPD ($\leq 35\%$ for soils) for values $\geq 5X$ CRDL or $\pm CRDL$ ($\pm 2XCRDL$ for soils) for values $\leq 5X$ CRDL:

A A A A A A

MS/MSD:

A A A A A A

Reporting Limits:

A A A A A A

Completeness of Analyte List:

A A A A A A

Field Duplicate Pair:

NA A A NA A NA

Equipment/Field Blank:

NA NA NA NA NA NA

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

Matrix/Method: Water / Dissolved Metals by EPA 6010B and 6020 (ICP/MS)

Lab: SVL, Idaho

Project: Monsanto

Field Split Pair: 14093/14094(AS): ok

SDG: W4F0348

Proj. No.: 913-1101-004-001-IF

Field Duplicate Pair: 14099/14100: ok

Sample Collection Dates: 6/10,12/2014

Result Verification (10% of results): Sample 14103: Metals are ok.

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																							
Matrix/Method: Water / EPA 300.0 (Cl, F, SO ₄); EPA 350.1 (NH ₃); EPA 353.2 (NO ₃ +NO ₂); SM2320B (Alkalinity, Carbonate and Bicarbonate); Hardness; SM 2540C (TDS); SM 4500-P-E (Phosphorous)												Lab: SVL, Idaho				Project: Monsanto							
Validated by: <i>Jeff Franklin</i>												Date: 9/19/2014				SDG: W4F0348				Proj. No.: 913-1101-004-001-IF			
Reviewed by:												Date:				Sample Collection Dates: 6/10, 12/2014							
Cooler Temperature: 1.8°C Login Receipt: ok Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method. Case Narrative: See next page		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
		14078	14093	14100	14103	14099	10102																
Completeness of Analyses:		A	A	A	A	A	A																
Preservation:		A	A	A	A	A	A																
Holding Times: Date Prepared: Date Analyzed: 6/17, 18, 19, 26, 7/1, 2/2014		A	A	A	A	A	A																
ICV/CCV (90-110%):		A	A	A	A	A	A																
Calibration Check (Correlation):		A	A	A	A	A	A																
Method Blanks:		A	A	A	A	A	A																
LCS %R (80-120%):		A	A	A	A	A	A																
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:		A	A	A	A	A	A																
MS/MSD:		A	A	A	A	A	A																
Reporting Limits:		A	A	A	A	A	A																
Completeness of Analyte List:		A	A	A	A	A	A																
Field Duplicate Pair:		NA	X	A	NA	A	NA																
Equipment/Field Blank:		NA	NA	NA	NA	NA	NA																
Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.																							

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 2

9/3/2014

HOLDING TIME SUMMARY /
SDG# W4F0348

Project #913-1101.004 ph001

LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Prep Days	Analysis Days	Regulatory	Status
W4F0348-01	14078	6/10/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		16	16	28	Accept
W4F0348-02	14093	6/12/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		14	14	28	Accept
W4F0348-05	14099	6/12/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		14	14	28	Accept
W4F0348-03	14100	6/12/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		14	14	28	Accept
W4F0348-06	14102	6/12/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		14	14	28	Accept
W4F0348-04	14103	6/12/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		14	14	28	Accept
W4F0348-01	14078	6/10/2014	7/1/2014	7/1/2014	EPA 350.1	Ammonia as N		21	21	28	Accept
W4F0348-02	14093	6/12/2014	7/1/2014	7/1/2014	EPA 350.1	Ammonia as N		19	19	28	Accept
W4F0348-05	14099	6/12/2014	7/1/2014	7/1/2014	EPA 350.1	Ammonia as N		19	19	28	Accept
W4F0348-03	14100	6/12/2014	7/1/2014	7/1/2014	EPA 350.1	Ammonia as N		19	19	28	Accept
W4F0348-06	14102	6/12/2014	7/1/2014	7/1/2014	EPA 350.1	Ammonia as N		19	19	28	Accept
W4F0348-04	14103	6/12/2014	7/1/2014	7/1/2014	EPA 350.1	Ammonia as N		19	19	28	Accept
W4F0348-01	14078	6/10/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		14	22	28	Accept
W4F0348-02	14093	6/12/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		12	20	28	Accept
W4F0348-05	14099	6/12/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		12	20	28	Accept
W4F0348-03	14100	6/12/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		12	20	28	Accept
W4F0348-06	14102	6/12/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		12	20	28	Accept
W4F0348-04	14103	6/12/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		12	20	28	Accept
W4F0348-01	14078	6/10/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	21	21	180	Accept
W4F0348-02	14093	6/12/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	19	19	180	Accept
W4F0348-05	14099	6/12/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	19	19	180	Accept
W4F0348-03	14100	6/12/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	19	19	180	Accept
W4F0348-06	14102	6/12/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	19	19	180	Accept
W4F0348-04	14103	6/12/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	19	19	180	Accept

9/3/2014

HOLDING TIME SUMMARY /
SDG# W4F0348

Project #913-1101.004 ph001

LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Prep Days	Analysis Days	Regulatory	Status
W4F0348-01	14078	6/10/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recoverable	15	20	180	Accept
W4F0348-02	14093	6/12/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recoverable	13	18	180	Accept
W4F0348-05	14099	6/12/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recoverable	13	18	180	Accept
W4F0348-03	14100	6/12/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recoverable	13	18	180	Accept
W4F0348-06	14102	6/12/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recoverable	13	18	180	Accept
W4F0348-04	14103	6/12/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recoverable	13	18	180	Accept
W4F0348-01	14078	6/10/2014	6/25/2014	7/7/2014	EPA 6020	Selenium	Dissolved	15	27	180	Accept
W4F0348-02	14093	6/12/2014	6/25/2014	7/7/2014	EPA 6020	Selenium	Dissolved	13	25	180	Accept
W4F0348-05	14099	6/12/2014	6/25/2014	7/7/2014	EPA 6020	Selenium	Dissolved	13	25	180	Accept
W4F0348-03	14100	6/12/2014	6/25/2014	7/7/2014	EPA 6020	Selenium	Dissolved	13	25	180	Accept
W4F0348-06	14102	6/12/2014	6/25/2014	7/7/2014	EPA 6020	Selenium	Dissolved	13	25	180	Accept
W4F0348-04	14103	6/12/2014	6/25/2014	7/7/2014	EPA 6020	Selenium	Dissolved	13	25	180	Accept
W4F0348-01	14078	6/10/2014	6/25/2014	7/7/2014	EPA 6020	Selenium	Total Recoverable	15	27	180	Accept
W4F0348-02	14093	6/12/2014	6/25/2014	7/7/2014	EPA 6020	Selenium	Total Recoverable	13	25	180	Accept
W4F0348-05	14099	6/12/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recoverable	13	26	180	Accept
W4F0348-03	14100	6/12/2014	6/25/2014	7/7/2014	EPA 6020	Selenium	Total Recoverable	13	25	180	Accept
W4F0348-06	14102	6/12/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recoverable	13	26	180	Accept
W4F0348-04	14103	6/12/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recoverable	13	26	180	Accept
W4F0348-01	14078	6/10/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		9	9	14	Accept
W4F0348-02	14093	6/12/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		7	7	14	Accept
W4F0348-05	14099	6/12/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		7	7	14	Accept
W4F0348-03	14100	6/12/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		7	7	14	Accept
W4F0348-06	14102	6/12/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		7	7	14	Accept
W4F0348-04	14103	6/12/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		7	7	14	Accept

9/3/2014

HOLDING TIME SUMMARY /
SDG# W4F0348

Project #913-1101.004 ph001

LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Prep Days	Analysis Days	Regulatory	Status
W4F0348-01	14078	6/10/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		15	20	180	Accept
W4F0348-02	14093	6/12/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		13	18	180	Accept
W4F0348-05	14099	6/12/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		13	18	180	Accept
W4F0348-03	14100	6/12/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		13	18	180	Accept
W4F0348-06	14102	6/12/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		13	18	180	Accept
W4F0348-04	14103	6/12/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		13	18	180	Accept
W4F0348-01	14078	6/10/2014	6/17/2014	6/17/2014	SM 2540 C	Total Diss. Solids		7	7	7	Accept
W4F0348-02	14093	6/12/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		6	6	7	Accept
W4F0348-05	14099	6/12/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		6	6	7	Accept
W4F0348-03	14100	6/12/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		6	6	7	Accept
W4F0348-06	14102	6/12/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		6	6	7	Accept
W4F0348-04	14103	6/12/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		6	6	7	Accept
W4F0348-01	14078	6/10/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	21	21	28	Accept
W4F0348-02	14093	6/12/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	19	19	28	Accept
W4F0348-05	14099	6/12/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	19	19	28	Accept
W4F0348-03	14100	6/12/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	19	19	28	Accept
W4F0348-06	14102	6/12/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	19	19	28	Accept
W4F0348-04	14103	6/12/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	19	19	28	Accept

Table 4: Sample Collection Summary June 2014

Location	Sample ID	Formation Monitored	Sample Date	Sample Time	Method	Purge Water Disposal Method	Filter/Unfilter	Filter Size (µm)	Notes
Surface Water/Non-Contact Cooling Water									
Little Spring Creek Pond Down	SDG 348	NA	June 12, 2014	1:45 PM	Grab	NA	U/F	0.45	
Little Spring Creek Pond Up	14103	NA	June 12, 2014	2:15 PM	Grab	NA	U/F	0.45	
Non-Contact Cooling Water 1	14107	NA	June 13, 2014	12:00 PM	Grab	NA	U/F	0.45	
Non-Contact Cooling Water 2	14108	NA	June 13, 2014	12:15 PM	Grab	NA	U/F	0.45	
Non-Contact Cooling Water 3	14109	NA	June 13, 2014	12:30 PM	Grab	NA	U/F	0.45	
Non-Contact Cooling Water Pond Inlet	14105	NA	June 13, 2014	10:00 AM	Grab	NA	U/F	0.45	
PR-1 Power Return Canal	14113	NA	June 13, 2014	2:15 PM	Grab	NA	U/F	0.45	
SC-01 Soda Up	14106	NA	June 13, 2014	10:30 AM	Grab	NA	U/F	0.45	
SC-02 Soda Weir	14110	NA	June 13, 2014	12:45 PM	Grab	NA	U/F	0.45	
SC-03 Soda Mid	14112	NA	June 13, 2014	1:45 PM	Grab	NA	U/F	0.45	
SC-04 Soda Down	14116	NA	June 13, 2014	4:00 PM	Grab	NA	U/F	0.45	
SC-04 Soda Down	14117	NA	June 13, 2014	4:00 PM	Grab	NA	U/F	0.45	
SC-05 Soda Below Weir	14111	NA	June 13, 2014	12:50 PM	Grab	NA	U/F	0.45	
SC-06 Soda at Property Line	14115	NA	June 13, 2014	3:30 PM	Grab	NA	U/F	0.45	
SC-07 Soda Upstream Power Return	14114	NA	June 13, 2014	3:00 PM	Grab	NA	U/F	0.45	
SC-08 Soda at Octagon Park	14121	NA	June 14, 2014	10:00 AM	Grab	NA	U/F	0.45	
SC-08 Soda at Octagon Park	14122	NA	June 14, 2014	10:30 AM	Grab	NA	U/F	0.45	Duplicate
SC-09 Soda above Diversion	14123	NA	June 14, 2014	11:00 AM	Grab	NA	U/F	0.45	
SC-10 Soda at RR Bridge	14120	NA	June 14, 2014	9:30 AM	Grab	NA	U/F	0.45	
SC-11 Soda at Highway 30	14119	NA	June 14, 2014	8:30 AM	Grab	NA	U/F	0.45	
Groundwater - Springs									
Big Spring	14078	UBZ	June 10, 2014	11:00 AM	Grab	NA	U/F	0.45	
Calf Spring	NS	UBZ-1 γ?							Spring was dry
City Park	14124	UBZ-1 γ?	June 14, 2014	11:30 AM	Grab	NA	U/F	0.45	
Homestead Spring	14118	UBZ	June 13, 2014	4:30 PM	Grab	NA	U/F	0.45	
Marsh Spring	14101	UBZ-1 γ?	June 12, 2014	1:15 PM	Grab	NA	U/F	0.45	
MC-1 Mormon Creek	14097	UBZ-1 γ?	June 12, 2014	10:30 AM	Grab	NA	U/F	0.45	
Mormon A Spring	14093	UBZ-1 γ?	June 12, 2014	8:40 AM	Grab	NA	U/F	0.45	
Mormon A Spring	14094	UBZ-1 γ?	June 12, 2014	8:40 AM	Grab	NA	U/F	0.45	
Mormon B Spring	14095	UBZ-1 γ?	June 12, 2014	9:20 AM	Grab	NA	U/F	0.45	
Mormon C Spring	14096	UBZ-1 γ?	June 12, 2014	9:40 AM	Grab	NA	U/F	0.45	
SW Spring at Government Dam Road	14099	UBZ-1 γ?	June 12, 2014	12:30 PM	Grab	NA	U/F	0.45	
SW Spring at Government Dam Road	14100	UBZ-1 γ?	June 12, 2014	1:00 PM	Grab	NA	U/F	0.45	Duplicate
SW Spring above the Confluence with Soda Creek	14098	UBZ-1 γ?	June 12, 2014	11:00 AM	Grab	NA	U/F	0.45	
Groundwater - Wells									
Harris	14033	UBZ-2 g4	June 5, 2014	12:20 PM	Non-Dedicated Pump	GROUND	U		
Independent Drilling	14125	UBZ	June 14, 2014	12:00 PM	Dedicated Pump	GROUND	U		
Lewis	14104	UBZ-2 g3 and g4?	June 12, 2014	3:00 PM	Dedicated Pump	GROUND	U		
PW-01	14091	UBZ-2 g3 and g4?	June 11, 2014	4:00 PM	Operating Well	GROUND	U		
PW-02	14090	UBZ-2 g3 and g4?	June 11, 2014	3:20 PM	Operating Well	GROUND	U		
PW-03	14089	UBZ-2 g3 and g4?	June 11, 2014	3:00 PM	Operating Well	GROUND	U		
PW-04	14036	UBZ-2 g3 and g4?	June 5, 2014	4:30 PM	Operating Well	GROUND	U		

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

GOLDER PROJECT #: 913-1101.004 ph .001	SITE: Monsanto, Soda Springs, ID	
LABORATORY: SVL Analytical, Inc.	SDG: #W4F0349	
SAMPLES	COLLECTED	MATRIX
14119, 14120, 14121 (3 Samples)	6-14-2014	WATER
14122, 14123, 14124 (3 Samples)	6-14-2014	WATER
14126 (1 Sample for limited analyte list)	6-14-2014	WATER

DATA ASSESSMENT SUMMARY

REVIEW ITEM	ICP/AES	ICP/MS	NH ₃	NO ₂ /NO ₃	ALK, CO ₂ , HCO ₃	Anion	TDS, TSS	Tot-Phos. TOC
1. Data Completeness	O	O	O	O	O	O	O	O
2. Preservation / Holding Times	O	O	O	O	O	O	O	O
3. Calibration/ ICP/MS Tune	O	O	O	O	O	O	O	O
4. ICP/MS Internal Stnds.	O	O	-	-	-	-	-	-
5. Interference Checks	O	O	-	-	-	-	-	-
6. Blanks, Field Blanks ①	O	O	O	O	Θ	O	O	O
7. Lab Duplicate/ F. Duplic RPD ②	O	X	O	O	O	O	O	O
8. LCS, Blank Spike, MFS	O	O	O	O	O	O	O	O
9. Matrix Spike, MSD ③	O	X O	O	O	O	O	O	O
10. GFAA, MSA, Serial Dil.	O	O	-	-	-	-	-	-
11. Detection Limits, Other QC	O	O	O	O	O	O	O	O
12. Data Verification, Overall Summary js1 ④	O	X O	O	O	O	O	O	O

O = Data had no problems

Θ = Problems, but do not affect data

X = Data qualified due to minor problems [typically estimated data (J or UJ)].

M = Data qualified due to major problems [typically more than 50% qualified (J/UJ)].

Z = Data unacceptable [typically data rejected (R)].

Comments/Qualified Results:

- ① DI water blank, 14126 contains bicarbonate, alkalinity, sodium
- ② Mn RPD 27.8% for field dup 14121/14122 Qual J (Total) - advisory only.
- ③ MSA js1 No qual applied
- ④ Diss results 7/1/2014 don't match raw data js1 - ok. to date

Validated by:

Date:

Reviewed by: Jill Lewis

Date: 9/19/2014

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

1. Date Package Completeness (Check if present).....

- | | | | |
|--------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|
| <input checked="" type="checkbox"/> Case narrative | <input checked="" type="checkbox"/> Spike Recovery Results | <input checked="" type="checkbox"/> ICP Linear Ranges | Other _____ |
| <input checked="" type="checkbox"/> Chain of Custody | <input checked="" type="checkbox"/> Duplicate Results | <input checked="" type="checkbox"/> Preparation Logs | <input checked="" type="checkbox"/> Acceptable |
| <input checked="" type="checkbox"/> Sample Results | <input checked="" type="checkbox"/> LCS Results | <input checked="" type="checkbox"/> Analysis Run Logs | <input checked="" type="checkbox"/> Absent |
| <input checked="" type="checkbox"/> ICV/CCV Results | <input checked="" type="checkbox"/> Standard Addition Results | <input checked="" type="checkbox"/> ICP Raw Data 7-1-14 ? | <input type="checkbox"/> Not required for data package requested. |
| <input checked="" type="checkbox"/> Blank Results | <input checked="" type="checkbox"/> ICP Serial Dilution | <input checked="" type="checkbox"/> GFAA Raw Data | |
| <input checked="" type="checkbox"/> ICP Interference Check Results | <input checked="" type="checkbox"/> Instrument Det. Limits | <input checked="" type="checkbox"/> Hg Raw Data | |
| | <input checked="" type="checkbox"/> ICP Correction Factor | <input checked="" type="checkbox"/> Cyanide Raw Data | |

Comments/Qualified Results: Sample recpt @3.5 deg C. Preservation complete.

2. Holding Times (Check all that apply).....

- ICP/GFAA metals completed in <6 months from collection
 Mercury analyzed in <28 days from collection
 Cyanide completed in 14 days from collection

Comments/Qualified Results: See Holding Time summary Table A1-SDG#

W4F0349. No Qualifications applied. Sample Prep: Metals Batch# W425144,
6/25(TotRec), # W425153, 7/01(Dissolv); Se # W425158 6/25(TotRec), # W425159
6/25(Dissolv);

3. Calibrations (Check all that apply).....

- | | |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> ICV/CCV %R for ICP/AA & ICP/MS, 90%-110%, acceptable | <input checked="" type="checkbox"/> ICV/CCV %R for ICP/MS 80-120% for Hg, results accepted |
| <input type="checkbox"/> ICV/CCV %R for ICP/AA, 75%-89% or 111%-125%, results estimated (J/UJ) | <input checked="" type="checkbox"/> CRDL Check Stnd %R 70 – 130, (50-150 SbPbTi) |
| <input type="checkbox"/> ICV/CCV %R for ICP/AA, <75% or >125%, reject positive results (R) | <input checked="" type="checkbox"/> ICV/CCV %R for Hg, 65%-79% or 121%-135%, results estimated (J/UJ) |
| | <input checked="" type="checkbox"/> ICP/MS TUNE: Isotope RSD % <5 % |

Comments/Qualified Results: ✓ Metals, TotRecov 6-30-14 @1214, Dissolv 7-1-14 @1352; ✓ Se, TotRecov 7-08-14 @0636, Dissolv not available – No Qualif;

✓ CRDL: Mn, 6-30; Metals, 7-01; Se, 7-08.
✓ Standards: ICP-AES, CRDL, ICS solution, 7/08/14 ICP/MS Tune (7700 Agilent);

Anions: ✓ r₂ >0.995, 5-30-14; ✓ NH₃; 7-01-14, r₂= 0.9997, ✓ NO₂/NO₃: 7-02-14, r₂= 0.99994., ✓ tPhos: 7-01-14, r₂= 0.9999; ✓ TOC: 6-12-2014, r₂=1.000; TDS, 6/18; Alkalinity: Buffer checks: 9=8.94, 7=7.01, 4=3.99;

4. Internal Standards (ICP/MS ONLY - Check all that apply).....

- Appropriate ISTD used for m/z isotopes required; eg, Sc, Ho, Ge, In, Li+6, or Au, (Y, Rh, Tb, Bi, or Lu); Within 40 amu.
 ISTD at least 70% recovery of Counts from the ICB reference [Method reference]
 ISTD between 60% to 125% recovery met? [DV reference]
- Sample or QC run at a 2X dilution for failed %RI ?
 If ISTD not within criteria, and not re-run @ 2X dilution, then J/UJ for associated element isotopes.
 If ISTD not included to analyses, or element isotopes not associated with required ISTD, reject ('R) sample results.

Comments/Qualified Results: ✓ Se, 7-08-14, In, Ga, @86-104%.

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

5. Interference Checks (Check all that apply).....

- ICS A/B Recoveries Acceptable
 Al, Ca, Fe, Mg sample concentrations > ICS concentrations
 ICS %R > 120%, results >IDL estimated (J)
- ICS %R 50-79%, results >IDL estimated (J)
 ICS %R 50-79%, results <IDL estimated (UJ)
 ICS %R <50%, results >IDL and <IDL rejected (R/UR)

Comments/Qualified Results: Metals-TotRecov 6-30@1228; Metals-Dissolved 7-01@1411; Se 7-08-14 @0654.

6. Lab Blanks, Field Blanks (Check all that apply).....

- Detects reported in ICB/CCB list:
 Detects in preparation blanks, list:
 Detects in field blanks, list

Field Blank ID: 14126
Lab Blank ID: NA

Qualified as undetected (U) all sample concentrations $\leq 10X$ any associated blank concentrations and less than the PQL, or J+ for samples greater than the PQL.

Comments/Qualified Results: ICB: Metals, 6/30 @1219; 7/01 @1357; CCB:
Metals all ND; ICB: Se, 7/08 @0640. CCB: Se all ND @ MDL.

Prep. Blanks: Metals TotRecov #W425144, All ND; Dissolv #W425153, All ND;
Se, TotRecov #W425158, ND; Dissolv #W425159, ND;
 NH3(W426075), NO3/NO2-N(W426083), tot-Alkalinity(W425173),
TDS(W425195), TSS(W425196), Phos. (W427065) TOC(W425306), Anions(W426173),
all ND @MRL \rightarrow FB - Trace Na < MRL, Trace Alk @ RL. - NO QUALIF.

Sample 14126 - DI Blank: detects of bicarbonate, sodium, Alkalinity. No action other than to note

7. Lab Duplicates, Field Duplicates (Check all that apply).....

- Duplicate RPD $\leq 20\%$ for waters ($\leq 35\%$ for soils) for results $> 5X$ CRDL
 Duplicate range is within \pm CRDL ($\pm 2X$ CRDL for soils) for results $< 5X$ CRDL

F.DUPLC. 14122/14121,

LAB Field Duplicate ID Sample 14119

Comments/Qualified Results METAL Sample 14119: (TotRec #W425144, 6/25)Metals RPD from 2-3%, (Dissolv# W425153, 7/01)RPD from 0-10%;

NH3, NO3/NO2-N @32%; tot-Alkalinity, Phos., TDS, Anions;
Sample not identified – Batch QC for all analytes. No Qualifications applied.

Field Dup: RPDs ok except Mn @ 27.8% Qual J on 14122/14121 (Total) - advisory only
No qual applied to later

8. Laboratory Control Samples, Blank Spikes (Check all that apply)....

- LCS %R 70-130%, [50-150% for Ag, Sb]: ACCEPTED
 LCS %R 40-69% or >130%, results >MDL: estimated (J-J+)
 LCS %R 40-69% and results <MDL: estimated (UJ)
 LCS %R <40% and all results rejected (R/UR)
- LCS %R >150% and all results rejected (R)
 LCS %R Ag, Sb, <20% and all results rejected
 LCS %R Ag, Sb, >170% and all results rejected

Comments/Qualified Results Metals, LCS ids: #W425144-BS1(TotRec), #W425153-BS1(Dissolv); Se LCS ids: #W425158 (TotRec); #W425159 (Dissolv);

NH3, NO3/NO2-N, tot-Alkalinity, Phos., Anions; (Batch IDs respectively:
W426075, W426083, W425173, W427065, W425173)

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES

NO

9. Spike Recovery (Check all that apply).....



- Spike %R with 75-125%: ACCEPTED
- MS and PDS %R 30-74%, results > MDL est. (J-), ND=(U)
- MS <75% and PDS >75%, results > MDL est. (J), ND=(U)
- MS and PDS %R >125%, detects > MDL est. (J+)
- MS >125% and PDS <125%, detects > MDL est. (J)
- MS and PDS %R <30% and <75%: results >MDL (J-) ND=(UR)
- Field blanks used for spike analysis ?
- Post digest spk rqrnd when %R <75, >125%, excep Ag
- RPD %>20% Waters, >35% Soil – Qualif J / UJ

R ✓ HgS ino Njaction qual. Jsp

Comments/Qualified Results: Sample 14119 MS/MSD: ✓(TotRec Metals #W425144), 88/142% and RPD= 2-3%, X Ca out of limit @142%, qualifies result as estimated "J". ✓(Dissolv Metals # W425153, 7/01), 83/102%, RPD from 0-10%; Se MS/MSD; ✓ (TotRec #W425144), 98/101% RPD= 1-2%; ✓ (Dissolv # W425153) 99/100%; ✓ Se PDS; 110/99%
✓ NH3 (W426075), NO3/NO2-N(W426083), tot-Phos (W427065), Anions(W426173) for MS/MSD. ✓RPD Sample not identified for all analytes – Batch QC. No Qualifications applied.

10. GFAA Performance, MSA, or Serial Dilutions.....



- GFAA Duplicate injection RSD <20%: ACCEPTED
- GFAA Duplicate injection RSD >20%, results > CRDL estimated (J)
- Analytical spike %R 85-115%
- Analytical spike %R 40-85%, results > IDL estimated (J)
- Analytical spike %R 10-40%, results <IDL estimated (UJ)
- Analytical spike %R <10%, results <IDL rejected (R)
- SD Analytes >50X MDL ? NO Qual.
- SD % Diff < 10%
- SD % Diff > 10%: J results >MDL, UJ for Non-detects

Comments/Qualified Results: ✓Se SD #W425159-L1 & #W425158-L1 ; Rslts <50X MDL, No Qual.

Acceptable: YES

NO

11. Detection Limits, Other QC.....



Comments/Qualified Results: ✓MDLs: Cd 0.68, Ca 29.0, Mg 90, Mn 1.3, Mo 2.7, K 170, Na 65.0, V 1.7, Zn 3.2 ug/L; Se, 0.52 ug/L;

12. Data Verification and Overall Assessment.....



Comments/Qualified Results: Dissolv fraction results do not match Raw Data files for Analytical run 14182B / Dissolv Fraction #W425153 on 7-01-2014.

Ok - results are from 7/8 for both T + D fractions

8/25/2014

HOLDING TIME SUMMARY / MONSANTO / SDG #W4F0349

Project 913-1101.004 ph001

LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		12	12	28	Accept
W4F0349-02	14120	6/14/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		12	12	28	Accept
W4F0349-03	14121	6/14/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		12	12	28	Accept
W4F0349-04	14122	6/14/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		12	12	28	Accept
W4F0349-05	14123	6/14/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		12	12	28	Accept
W4F0349-06	14124	6/14/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		12	12	28	Accept
W4F0349-07	14126	6/14/2014	6/26/2014	6/26/2014	EPA 300.0	Anions		12	12	28	Accept
LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	6/30/2014	7/1/2014	EPA 350.1	Ammonia as N		16	17	28	Accept
W4F0349-02	14120	6/14/2014	6/30/2014	7/1/2014	EPA 350.1	Ammonia as N		16	17	28	Accept
W4F0349-03	14121	6/14/2014	6/30/2014	7/1/2014	EPA 350.1	Ammonia as N		16	17	28	Accept
W4F0349-04	14122	6/14/2014	6/30/2014	7/1/2014	EPA 350.1	Ammonia as N		16	17	28	Accept
W4F0349-05	14123	6/14/2014	6/30/2014	7/1/2014	EPA 350.1	Ammonia as N		16	17	28	Accept
W4F0349-06	14124	6/14/2014	6/30/2014	7/1/2014	EPA 350.1	Ammonia as N		16	17	28	Accept
W4F0349-07	14126	6/14/2014	6/30/2014	7/1/2014	EPA 350.1	Ammonia as N		16	17	28	Accept
LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		10	18	28	Accept
W4F0349-02	14120	6/14/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		10	18	28	Accept
W4F0349-03	14121	6/14/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		10	18	28	Accept
W4F0349-04	14122	6/14/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		10	18	28	Accept
W4F0349-05	14123	6/14/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		10	18	28	Accept
W4F0349-06	14124	6/14/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		10	18	28	Accept
W4F0349-07	14126	6/14/2014	6/24/2014	7/2/2014	EPA 353.2	Nitrate/Nitrite as N		10	18	28	Accept
LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	17	17	28	Accept
W4F0349-02	14120	6/14/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	17	17	28	Accept
W4F0349-03	14121	6/14/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	17	17	28	Accept
W4F0349-04	14122	6/14/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	17	17	28	Accept
W4F0349-05	14123	6/14/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	17	17	28	Accept
W4F0349-06	14124	6/14/2014	7/1/2014	7/1/2014	EPA 6010B	Metals	Dissolved	17	17	28	Accept

8/25/2014

HOLDING TIME SUMMARY / MONSANTO / SDG #W4F0349

Project 913-1101.004 ph001

LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recov.	11	16	28	Accept
W4F0349-02	14120	6/14/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recov.	11	16	28	Accept
W4F0349-03	14121	6/14/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recov.	11	16	28	Accept
W4F0349-04	14122	6/14/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recov.	11	16	28	Accept
W4F0349-05	14123	6/14/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recov.	11	16	28	Accept
W4F0349-06	14124	6/14/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recov.	11	16	28	Accept
W4F0349-07	14126	6/14/2014	6/25/2014	6/30/2014	EPA 6010B	Metals	Total Recov.	11	16	28	Accept
LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Dissolved	11	24	28	Accept
W4F0349-02	14120	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Dissolved	11	24	28	Accept
W4F0349-03	14121	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Dissolved	11	24	28	Accept
W4F0349-04	14122	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Dissolved	11	24	28	Accept
W4F0349-05	14123	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Dissolved	11	24	28	Accept
W4F0349-06	14124	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Dissolved	11	24	28	Accept
LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recov.	11	24	28	Accept
W4F0349-02	14120	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recov.	11	24	28	Accept
W4F0349-03	14121	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recov.	11	24	28	Accept
W4F0349-04	14122	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recov.	11	24	28	Accept
W4F0349-05	14123	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recov.	11	24	28	Accept
W4F0349-06	14124	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recov.	11	24	28	Accept
W4F0349-07	14126	6/14/2014	6/25/2014	7/8/2014	EPA 6020	Selenium	Total Recov.	11	24	28	Accept
LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		5	5	28	Accept
W4F0349-02	14120	6/14/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		5	5	28	Accept
W4F0349-03	14121	6/14/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		5	5	28	Accept
W4F0349-04	14122	6/14/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		5	5	28	Accept
W4F0349-05	14123	6/14/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		5	5	28	Accept
W4F0349-06	14124	6/14/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		5	5	28	Accept
W4F0349-07	14126	6/14/2014	6/19/2014	6/19/2014	SM 2320B	Total Alkalinity		5	5	28	Accept

8/25/2014

HOLDING TIME SUMMARY / MONSANTO / SDG #W4F0349

Project 913-1101.004 ph001

LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		11	16	28	Accept
W4F0349-02	14120	6/14/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		11	16	28	Accept
W4F0349-03	14121	6/14/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		11	16	28	Accept
W4F0349-04	14122	6/14/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		11	16	28	Accept
W4F0349-05	14123	6/14/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		11	16	28	Accept
W4F0349-06	14124	6/14/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		11	16	28	Accept
W4F0349-07	14126	6/14/2014	6/25/2014	6/30/2014	SM 2340B	Hardness		11	16	28	Accept
LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		4	4	28	Accept
W4F0349-02	14120	6/14/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		4	4	28	Accept
W4F0349-03	14121	6/14/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		4	4	28	Accept
W4F0349-04	14122	6/14/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		4	4	28	Accept
W4F0349-05	14123	6/14/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		4	4	28	Accept
W4F0349-06	14124	6/14/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		4	4	28	Accept
W4F0349-07	14126	6/14/2014	6/18/2014	6/18/2014	SM 2540 C	Total Diss. Solids		4	4	28	Accept
LabSampleNo	ClientId	SampDate	PrepDate	ResultDate	Method	Analyte	Fraction	Days to Prep	Days to Analysis	Regulatory	Status
W4F0349-01	14119	6/14/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	17	17	28	Accept
W4F0349-02	14120	6/14/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	17	17	28	Accept
W4F0349-03	14121	6/14/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	17	17	28	Accept
W4F0349-04	14122	6/14/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	17	17	28	Accept
W4F0349-05	14123	6/14/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	17	17	28	Accept
W4F0349-06	14124	6/14/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	17	17	28	Accept
W4F0349-07	14126	6/14/2014	7/1/2014	7/1/2014	SM 4500-P-E	Phosphorus	Total	17	17	28	Accept

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

GOLDER PROJECT #: 913-1101.004	ph .001	STL: Monsanto, Soda Springs, ID
LABORATORY:	SVL Analytical, Inc.	SDIG: #W4F0350
SAMPLES COLLECTED MATRIX		
14080, 14081, 14075, 14079 (4 Samples)	6-10-2014	WATER
14087, 14085, 14092, 14090 (4 Samples)	6-11-2014	WATER
14104 (1 Samples)	6-12-2014	WATER

DATA ASSESSMENT SUMMARY

REVIEW ITEM	ICP/AES	ICP/MS	NH ₃	NO ₂ /NO ₃	ALK, CO ₂ , HCO ₃	Anions	TDS, TSS	Tot. Phos. TOC
1. Data Completeness	○	○	○	○	○	○	○	○
2. Preservation / Holding Times	○	○	○	○	○	○	○	○
3. Calibration (ICP/MS Tune); CC	○	○	○	○	-	○	-	○
4. ICP/MS Internal Stnds.	-	-	-	-	-	-	-	-
5. Interference Checks	○	-	-	-	-	-	-	-
6. Blanks, Field Blanks ①	○	○	○	○	○	○	○	○
7. Lab Duplicate/ F. Duplic RPD	○	○	○	○	○	○	○	○
8. LCS, Blank Spike, MFS	○	○	○	○	○	○	-	○
9. Matrix Spike, MSD	○	○	○	○	-	○	-	○
10. GFAA, MSA, Serial Dil.	-	○	-	-	-	-	-	-
11. Detection Limits, Other QC	○	○	○	○	○	○	○	○
12. Data Verification, Overall Summary ②	○	○	○	○	○	○	○	○

O = Data had no problems

Θ = Problems, but do not affect data

X = Data qualified due to minor problems [typically estimated data (J or UJ)].

M = Data qualified due to major problems [typically more than 50% qualified (J/UJ)].

Z = Data unacceptable [typically data rejected (R)].

Comments/Qualified Results:

① Trace Mn in CCB set - NO Qualif.

② Chloride result for Sample 14087 reported in error. See updated Lab Report Sheet.

Validated by:

Reviewed by:

Date: Aug. 15, 2014
Date: 9/19/2014

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

1. Date Package Completeness (Check if present).....

- Case narrative
- Chain of Custody
- Sample Results
- ICV/CCV Results
- Blank Results
- ICP Interference Check Results

- Spike Recovery Results
- Duplicate Results
- LCS Results
- Standard Addition Results
- ICP Serial Dilution
- Instrument Det. Limits
- ICP Correction Factor

- ICP Linear Ranges
- Preparation Logs
- Analysis Run Logs
- ICP Raw Data
- GFAA Raw Data
- Hg Raw Data
- Cyanide Raw Data

- Other **INORG.CHEM**
- Acceptable
- Absent
- Not required for data package requested.

Comments/Qualified Results: Sample recpt @ 4.1 deg C. Preservation
complete.

2. Holding Times (Check all that apply).....

- ICP/GFAA metals completed in <6 months from collection
- Mercury analyzed in <28 days from collection
- Cyanide completed in 14 days from collection

INORG

Comments/Qualified Results: See Holding Time summary Table A1-SDG# W4F0350. No Qualifications applied.

3. Calibrations (Check all that apply).....

- ICV/CCV %R for ICP/AA & ICP/MS, 90%-110%, acceptable
- ICV/CCV %R for ICP/AA, 75%-89% or 111%-125%, results estimated (J/U)
- ICV/CCV %R for ICP/AA, <75% or >125%, reject positive results (R)

- ICV/CCV %R for ICP/MS 80-120% for Hg, results accepted
- CRDL Check Stnd %R 70 - 130, (50-150 SbPbTi)
- ICV/CCV %R for Hg, 65%-79% or 121%-135%, results estimated (J/U)
- ICP/MS TUNE: Isotope RSD % <5 %

Comments/Qualified Results: ✓ Mn, 7-1-14, Thermo; ✓ Metals, 7-1-14, Optima;
✓ Se, 7-7-14, Agilent; ✓ CRDL: Mn, 7-1; Metals, 7-1; Se, 7-7. ✓ Standards: ICP-AES,
CRDL, ICS solution,
Anions: ✓ r₂ > 0.995, ✓ NH₃; r₂ = 0.9997, ✓ NO₂/NO₃; r₂ = 0.99994., ✓ Phos:
r₂ = 0.9999,

4. Internal Standards (ICP/MS ONLY - Check all that apply).....

- Appropriate ISTD used for m/z isotopes required; eg, Sc, Ho, Ge, In, Li+6, or Au, (Y, Rh, Tb, Bi, or Lu); Within 40 amu.
- ISTD at least 70% recovery of Counts from the ICB reference [Method reference]
- ISTD between 60% to 125% recovery met? [DV reference]

- Sample or QC run at a 2X dilution for failed %RI?
- If ISTD not within criteria, and not re-run @ 2X dilution, then J/U for associated element isotopes.
- If ISTD not included to analyses, or element isotopes not associated with required ISTD, reject ('R) sample results.

Comments/Qualified Results: ✓ Se:

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

5. Interference Checks (Check all that apply).....

- ICS A/B Recoveries Acceptable
 Al, Ca, Fe, Mg sample concentrations > ICS concentrations
 ICS %R > 120%, results >IDL estimated (J)
 ICS %R 50-79%, results >IDL estimated (J)
 ICS %R 50-79%, results <IDL estimated (UJ)
 ICS %R <50%, results >IDL and <IDL rejected (R/UR)

Comments/Qualified Results: Mn. 7-1-14 @0932;

Metals 7-1-14 @0951; Se 7-7-14 @1052.

6. Lab Blanks, Field Blanks (Check all that apply).....

- Detects reported in ICB/CCB list: Mn
 Detects in preparation blanks, list:
 Detects in field blanks, list

Field Blank ID: NONE
Lab Blank ID:

Qualified as undetected (U) all sample concentrations ≤10X any associated blank concentrations and less than the PQL, or J+ for samples greater than the PQL.

Comments/Qualified Results: ICB: Mn, Metals, Se. CCB: Mn detect @ 10:34 not assoc. w/smples. Metals all ND; Se all ND. Prep. Blanks: Metals, Se, Mn.
 NH3, NO3/NO2-N, tot-Alkalinity, TDS, Phos., Anions, all ND @MRL

7. Lab Duplicates, Field Duplicates (Check all that apply).....

- Duplicate RPD ≤20% for waters (<35% for soils) for results >5X CRDL
 Duplicate range is within ±CRDL (± 2X CRDL for soils) for results <5X CRDL

Field Duplicate ID: None

Comments/Qualified Results ~~Metals~~ Sample 14104: ranging from 0 to 5%; Se @ 1%.

- NH3 exceeds +/- RL, NO3/NO2-N exceeds rpd limit; tot-Alkalinity, Phos., TDS, Anions; Sample not identified – Batch QC for all analytes. No Qualifications applied.

8. Laboratory Control Samples, Blank Spikes (Check all that apply)....

- LCS %R 70-130%, [50-150% for Ag, Sb]: ACCEPTED
 LCS %R 40-69% or >130%, results >MDL: estimated (J/J+)
 LCS %R 40-69% and results <MDL: estimated (UJ)
 LCS %R <40% and all results rejected (R/UR)

LCS %R >150% and all results rejected (R)
 LCS %R Ag, Sb, <20% and all results rejected
 LCS %R Ag, Sb, >170% and all results rejected

Comments/Qualified Results Metals, Se, LCS id: W425142-BS1
 NH3, NO3/NO2-N, tot-Alkalinity, Phos., Anions

METALS & INORGANIC / Tier III & IV Data Validation Summary Checklist

Acceptable: YES NO

9. Spike Recovery (Check all that apply).....

- Spike %R with 75-125%: ACCEPTED
- MS and PDS %R 30-74%, results > MDL est. (J-), ND=(UJ)
- MS <75% and PDS >75%, results > MDL est. (J), ND=(UJ)
- MS and PDS %R >125%, detects > MDL est. (J+)

- MS >125% and PDS <125%, detects > MDL est. (J)
- MS and PDS %R <30% and <75%: results >MDL (J-) ND=(UR)
- Field blanks used for spike analysis ?
- Post digest spk rqrd when %R <75, >125%, excep Ag

Comments/Qualified Results: Sample 14104: Metals, Se; MS/MSD; rpd

NH₃, NO₃/NO₂-N, tot-Phos, Anions for MS/MSD. RPD Sample not identified for all analytes – Batch QC. No Qualifications applied.

10. GFAA Performance, MSA, or Serial Dilutions.....

- GFAA Duplicate injection RSD <20%: ACCEPTED
- GFAA Duplicate injection RSD >20%, results > CRDL estimated (J)
- Analytical spike %R 85-115%
- Analytical spike %R 40-85%, results > IDL estimated (J)
- Analytical spike %R 10-40%, results <IDL estimated (UJ)
- Analytical spike %R <10%, results <IDL rejected (R)

- SD Analytes >50X MDL ?
- SD % Diff < 10%
- SD % Diff > 10%: J results >MDL, UJ for Non-detects

Comments/Qualified Results: Se SD #W425157-L1

Acceptable: YES NO

11. Detection Limits, Other QC.....

Comments/Qualified Results: MDLs: Se, 0.52 ug/L; Cd 0.68, Ca 29.0, Mg 90, Mo 2.7, K 170, Na 65.0, V 1.7, Zn 3.2 ug/L; Mn 1.3 ug/L

12. Data Verification and Overall Assessment.....

Comments/Qualified Results:

Smpl-04, 14087 (TW76) check for Cl: Erroneous peak reported for Cl anion in run #55 (6-26-14 @2040); Correct Peak @ 25x Dilution calculated @ 122.1 mg/L and updated on report sheet.



**Golder
Associates**

SUBJECT	MONSANTO - W4FO350		
Job No.	Made By	Troy	Date Sheet
Ref.	Checked		of
	Reviewed		

W4FO350

ICV: ✓ CCV: ✓

ICP Interelement CF 3-24-14 OPTIMA
6-23-14 THERMO 3

Linear Rng. Metals ✓ Se ✓ 9-25-13 OPTIMA
Mn ✓ 4-14-2011 AGILENT ICPMS
6-23-14 THERMO

ICPMS TUNE Se 7-07-14 ✓ Agilent 7800

- Analytes ✓
- Scans ✓ 5x? Ø
- Mass ✓
- CPS Se = 56
- % RSD ✓

Internal Stds: 60-125% of Cal. Blank ✓
Se 7-07-14 Agilent

CALIB: Mn 7-1-14 ✓ ICV ✓ CCV ✓ Thermo
Metals 7-1-14 ✓ ✓ OPTIMA
Se 7-7-14 ✓ ✓ Agilent

CRDL Metals, Mn, Se ✓

$$y = mx + b$$

$$3.0458 = (.133)(.396) + b$$

$$3.0458 - .0527 = b$$

$$b = 2.9931$$

$$\underline{\text{Cl}} \quad b: 2.8146$$

$$\left. \begin{array}{l} \text{Cl CCV1} \\ 2.8641 = \frac{m}{.133} x + b \\ m = 7.72 \quad x = \frac{y - b}{m} \\ .371 = \cancel{.371} \quad \frac{2.864 - b}{.133} \end{array} \right\}$$

TABLE A-1: HOLDING TIME SUMMARY / SDG# W4F0350

LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0350-01	14104	EPA 300.0	Anions	6/12/2014	6/26/2014	6/26/2014	14.0	14.0	28	OK
W4F0350-02	14080	EPA 300.0	Anions	6/10/2014	6/26/2014	6/26/2014	16.0	16.0	28	OK
W4F0350-03	14081	EPA 300.0	Anions	6/10/2014	6/26/2014	6/26/2014	16.0	16.0	28	OK
W4F0350-04	14087	EPA 300.0	Anions	6/11/2014	6/26/2014	6/26/2014	15.0	15.0	28	OK
W4F0350-05	14085	EPA 300.0	Anions	6/11/2014	6/26/2014	6/26/2014	15.0	15.0	28	OK
W4F0350-06	14075	EPA 300.0	Anions	6/10/2014	6/26/2014	6/26/2014	16.0	16.0	28	OK
W4F0350-07	14092	EPA 300.0	Anions	6/11/2014	6/26/2014	6/26/2014	15.0	15.0	28	OK
W4F0350-08	14090	EPA 300.0	Anions	6/11/2014	6/26/2014	6/26/2014	15.0	15.0	28	OK
W4F0350-09	14079	EPA 300.0	Anions	6/10/2014	6/26/2014	6/26/2014	16.0	16.0	28	OK
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0350-01	14104	EPA 350.1	Ammonia as N	6/12/2014	6/30/2014	7/1/2014	18.0	19.0	28	OK
W4F0350-02	14080	EPA 350.1	Ammonia as N	6/10/2014	6/30/2014	7/1/2014	20.0	21.0	28	OK
W4F0350-03	14081	EPA 350.1	Ammonia as N	6/10/2014	6/30/2014	7/1/2014	20.0	21.0	28	OK
W4F0350-04	14087	EPA 350.1	Ammonia as N	6/11/2014	6/30/2014	7/1/2014	19.0	20.0	28	OK
W4F0350-05	14085	EPA 350.1	Ammonia as N	6/11/2014	6/30/2014	7/1/2014	19.0	20.0	28	OK
W4F0350-06	14075	EPA 350.1	Ammonia as N	6/10/2014	6/30/2014	7/1/2014	20.0	21.0	28	OK
W4F0350-07	14092	EPA 350.1	Ammonia as N	6/11/2014	6/30/2014	7/1/2014	19.0	20.0	28	OK
W4F0350-08	14090	EPA 350.1	Ammonia as N	6/11/2014	6/30/2014	7/1/2014	19.0	20.0	28	OK
W4F0350-09	14079	EPA 350.1	Ammonia as N	6/10/2014	6/30/2014	7/1/2014	20.0	21.0	28	OK
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0350-01	14104	EPA 353.2	Nitrate/Nitrite as N	6/12/2014	6/24/2014	7/2/2014	12.0	20.0	28	OK
W4F0350-02	14080	EPA 353.2	Nitrate/Nitrite as N	6/10/2014	6/24/2014	7/2/2014	14.0	22.0	28	OK
W4F0350-03	14081	EPA 353.2	Nitrate/Nitrite as N	6/10/2014	6/24/2014	7/2/2014	14.0	22.0	28	OK
W4F0350-04	14087	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13.0	21.0	28	OK
W4F0350-05	14085	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13.0	21.0	28	OK
W4F0350-06	14075	EPA 353.2	Nitrate/Nitrite as N	6/10/2014	6/24/2014	7/2/2014	14.0	22.0	28	OK
W4F0350-07	14092	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13.0	21.0	28	OK
W4F0350-08	14090	EPA 353.2	Nitrate/Nitrite as N	6/11/2014	6/24/2014	7/2/2014	13.0	21.0	28	OK
W4F0350-09	14079	EPA 353.2	Nitrate/Nitrite as N	6/10/2014	6/24/2014	7/2/2014	14.0	22.0	28	OK

LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0350-01	14104	EPA 6010B	Metals	6/12/2014	6/25/2014	7/1/2014	13.0	19.0	180	OK
W4F0350-02	14080	EPA 6010B	Metals	6/10/2014	6/25/2014	7/1/2014	15.0	21.0	180	OK
W4F0350-03	14081	EPA 6010B	Metals	6/10/2014	6/25/2014	7/1/2014	15.0	21.0	180	OK
W4F0350-04	14087	EPA 6010B	Metals	6/11/2014	6/25/2014	7/1/2014	14.0	20.0	180	OK
W4F0350-05	14085	EPA 6010B	Metals	6/11/2014	6/25/2014	7/1/2014	14.0	20.0	180	OK
W4F0350-06	14075	EPA 6010B	Metals	6/10/2014	6/25/2014	7/1/2014	15.0	21.0	180	OK
W4F0350-07	14092	EPA 6010B	Metals	6/11/2014	6/25/2014	7/1/2014	14.0	20.0	180	OK
W4F0350-08	14090	EPA 6010B	Metals	6/11/2014	6/25/2014	7/1/2014	14.0	20.0	180	OK
W4F0350-09	14079	EPA 6010B	Metals	6/10/2014	6/25/2014	7/1/2014	15.0	21.0	180	OK
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0350-01	14104	EPA 6020	Selenium	6/12/2014	6/25/2014	7/7/2014	13.0	25.0	180	OK
W4F0350-02	14080	EPA 6020	Selenium	6/10/2014	6/25/2014	7/7/2014	15.0	27.0	180	OK
W4F0350-03	14081	EPA 6020	Selenium	6/10/2014	6/25/2014	7/7/2014	15.0	27.0	180	OK
W4F0350-04	14087	EPA 6020	Selenium	6/11/2014	6/25/2014	7/7/2014	14.0	26.0	180	OK
W4F0350-05	14085	EPA 6020	Selenium	6/11/2014	6/25/2014	7/7/2014	14.0	26.0	180	OK
W4F0350-06	14075	EPA 6020	Selenium	6/10/2014	6/25/2014	7/7/2014	15.0	27.0	180	OK
W4F0350-07	14092	EPA 6020	Selenium	6/11/2014	6/25/2014	7/7/2014	14.0	26.0	180	OK
W4F0350-08	14090	EPA 6020	Selenium	6/11/2014	6/25/2014	7/7/2014	14.0	26.0	180	OK
W4F0350-09	14079	EPA 6020	Selenium	6/10/2014	6/25/2014	7/7/2014	15.0	27.0	180	OK
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0350-01	14104	SM 2320B	Total Alkalinity	6/12/2014	6/19/2014	6/19/2014	7.0	7.0	14	OK
W4F0350-02	14080	SM 2320B	Total Alkalinity	6/10/2014	6/19/2014	6/19/2014	9.0	9.0	14	OK
W4F0350-03	14081	SM 2320B	Total Alkalinity	6/10/2014	6/19/2014	6/19/2014	9.0	9.0	14	OK
W4F0350-04	14087	SM 2320B	Total Alkalinity	6/11/2014	6/19/2014	6/19/2014	8.0	8.0	14	OK
W4F0350-05	14085	SM 2320B	Total Alkalinity	6/11/2014	6/18/2014	6/19/2014	7.0	8.0	14	OK
W4F0350-06	14075	SM 2320B	Total Alkalinity	6/10/2014	6/18/2014	6/19/2014	8.0	9.0	14	OK
W4F0350-07	14092	SM 2320B	Total Alkalinity	6/11/2014	6/18/2014	6/19/2014	7.0	8.0	14	OK
W4F0350-08	14090	SM 2320B	Total Alkalinity	6/11/2014	6/18/2014	6/19/2014	7.0	8.0	14	OK
W4F0350-09	14079	SM 2320B	Total Alkalinity	6/10/2014	6/18/2014	6/19/2014	8.0	9.0	14	OK

8/25/2014

HOLDING TIME SUMMARY / MONSANTO Groundwater / SDG #W4F0350

Project #913-1101.004 ph001

LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0350-01	14104	SM 2340B	Hardness	6/12/2014	6/25/2014	7/1/2014	13.0	19.0	180	OK
W4F0350-02	14080	SM 2340B	Hardness	6/10/2014	6/25/2014	7/1/2014	15.0	21.0	180	OK
W4F0350-03	14081	SM 2340B	Hardness	6/10/2014	6/25/2014	7/1/2014	15.0	21.0	180	OK
W4F0350-04	14087	SM 2340B	Hardness	6/11/2014	6/25/2014	7/1/2014	14.0	20.0	180	OK
W4F0350-05	14085	SM 2340B	Hardness	6/11/2014	6/25/2014	7/1/2014	14.0	20.0	180	OK
W4F0350-06	14075	SM 2340B	Hardness	6/10/2014	6/25/2014	7/1/2014	15.0	21.0	180	OK
W4F0350-07	14092	SM 2340B	Hardness	6/11/2014	6/25/2014	7/1/2014	14.0	20.0	180	OK
W4F0350-08	14090	SM 2340B	Hardness	6/11/2014	6/25/2014	7/1/2014	14.0	20.0	180	OK
W4F0350-09	14079	SM 2340B	Hardness	6/10/2014	6/25/2014	7/1/2014	15.0	21.0	180	OK
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0350-01	14104	SM 2540 C	Total Diss. Solids	6/12/2014	6/18/2014	6/18/2014	6.0	6.0	7	OK
W4F0350-02	14080	SM 2540 C	Total Diss. Solids	6/10/2014	6/17/2014	6/17/2014	7.0	7.0	7	OK
W4F0350-03	14081	SM 2540 C	Total Diss. Solids	6/10/2014	6/17/2014	6/17/2014	7.0	7.0	7	OK
W4F0350-04	14087	SM 2540 C	Total Diss. Solids	6/11/2014	6/18/2014	6/18/2014	7.0	7.0	7	OK
W4F0350-05	14085	SM 2540 C	Total Diss. Solids	6/11/2014	6/18/2014	6/18/2014	7.0	7.0	7	OK
W4F0350-06	14075	SM 2540 C	Total Diss. Solids	6/10/2014	6/17/2014	6/17/2014	7.0	7.0	7	OK
W4F0350-07	14092	SM 2540 C	Total Diss. Solids	6/11/2014	6/18/2014	6/18/2014	7.0	7.0	7	OK
W4F0350-08	14090	SM 2540 C	Total Diss. Solids	6/11/2014	6/18/2014	6/18/2014	7.0	7.0	7	OK
W4F0350-09	14079	SM 2540 C	Total Diss. Solids	6/10/2014	6/17/2014	6/17/2014	7.0	7.0	7	OK
LabSampleNo	ClientId	Method	Analyte	SampDate	PrepDate	ResultDate	Prep Days	Analysis Days	Regulatory	Status
W4F0350-01	14104	SM 4500-P-E	Phosphorus	6/12/2014	7/1/2014	7/1/2014	19.0	19.0	28	OK
W4F0350-02	14080	SM 4500-P-E	Phosphorus	6/10/2014	7/1/2014	7/1/2014	21.0	21.0	28	OK
W4F0350-03	14081	SM 4500-P-E	Phosphorus	6/10/2014	7/1/2014	7/1/2014	21.0	21.0	28	OK
W4F0350-04	14087	SM 4500-P-E	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20.0	20.0	28	OK
W4F0350-05	14085	SM 4500-P-E	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20.0	20.0	28	OK
W4F0350-06	14075	SM 4500-P-E	Phosphorus	6/10/2014	7/1/2014	7/1/2014	21.0	21.0	28	OK
W4F0350-07	14092	SM 4500-P-E	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20.0	20.0	28	OK
W4F0350-08	14090	SM 4500-P-E	Phosphorus	6/11/2014	7/1/2014	7/1/2014	20.0	20.0	28	OK
W4F0350-09	14079	SM 4500-P-E	Phosphorus	6/10/2014	7/1/2014	7/1/2014	21.0	21.0	28	OK

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																									
Matrix/Method: Water / Total Metals by EPA 200.8 (ICP/MS)													Lab: IAS EnviroChem, Idaho			Project: Monsanto									
Validated by: <i>JL Janket</i>													Date: 9/19/2014			SDG: I406143				Proj. No.: 913-1101-004-001-IF					
Reviewed by:													Date:			Sample Collection Dates: 6/8,12,13,16/2014									
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				
Cooler Temperature: 6.4°C Login Receipt: ok		14070	14068	14117	14041	14061	14094	14077																	
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.)																									
Case Narrative: See next page																									
Completeness of Analyses:		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A					
Preservation:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
Holding Times: Date Prepared: Date Analyzed: <i>7/7, 8/2014</i>		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A				
ICP/AA ICV/CCV (90-110%):		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
CRDL STD (50-150%)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
ICP Interference Check (80-120%):		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
Internal Standards:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
ICP Serial Dilution (<10%D for >50X IDL):		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
Method Blanks:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
LCS %R (80-120%):		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
MS/MSD:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
Reporting Limits:		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N				
Completeness of Analyte List:		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A				
Field Duplicate Pair:		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A				
Equipment/Field Blank:		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA										
Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.																									

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1																				
Matrix/Method: Water / Dissolved Metals by EPA 200.8 (ICP/MS)												Lab: IAS EnviroChem, Idaho				Project: Monsanto				
Validated by:	<i>Jill Fawcett</i>						Date: 9/19/2014				SDG: I406143				Proj. No.: 913-1101-004-001-IF					
Reviewed by:							Date:				Sample Collection Dates: 6/8,12,13,16/2014									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Cooler Temperature: 6.4°C Login Receipt: ok																				
Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method.	14117	14094																		
Case Narrative: See next page																				
Completeness of Analyses:	A	A																		
Preservation:	N	N																		
Holding Times: Date Prepared: Date Analyzed: 7/7/2014, 7/8/2014	A	A																		
ICP/AA ICV/CCV (90-110%):	N	N																		
CRDL STD (50-150%)	N	N																		
ICP Interference Check (80-120%):	N	N																		
Internal Standards:	N	N																		
ICP Serial Dilution (<10%D for >50X IDL):	N	N																		
Method Blanks:	N	N																		
LCS %R (80-120%):	N	N																		
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:	N	N																		
MS/MSD:	N	N																		
Reporting Limits:	N	N																		
Completeness of Analyte List:	A	A																		
Field Duplicate Pair:	A	A																		
Equipment/Field Blank:	NA	NA																		
Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.																				

INORGANIC DATA VALIDATION WORKSHEET (LEVEL I) - PAGE 1

Matrix/Method: Water / EPA 300.0 (Cl, F, SO ₄ , NO ₃ +NO ₂); SM 4500-NH ₃ -G (NH ₃); SM2320B (Alkalinity); Hardness (200.8 Calc); SM 2540C (TDS); EPA 365.3 (Phosphorous)														Lab: IAS EnviroChem, Idaho		Project: Monsanto										
Validated by: <i>Jel Faulkner</i>							Date: 9/19/2014							SDG: I406143			Proj. No.: 913-1101-004-001-IF									
Reviewed by:							Date:							Sample Collection Dates: 6/8,12,13,16/2014												
Cooler Temperature: 6.4°C Login Receipt: ok Sample identification and validation criteria (per WP Level II, EPA NFG 2010, TA QA/QC criteria and analytical reference method. Case Narrative: See next page		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20					
		14070	14068	14117	14041	14061	14094	14077																		
Completeness of Analyses:		A	A	A	A	A	A	A	A																	
Preservation:		N	N	N	N	N	N	N	N																	
Holding Times: Date Prepared: Date Analyzed: 6/17,18,20,24 <i>7/7/2014</i>		X	X	X	X	X	X	X	A																	
ICV/CCV (90-110%):		N	N	N	N	N	N	N	N																	
Calibration Check (Correlation):		N	N	N	N	N	N	N	N																	
Method Blanks:		N	N	N	N	N	N	N	N																	
LCS %R (80-120%):		N	N	N	N	N	N	N	N																	
Lab Duplicate, ≤20% RPD (≤35% for soils) for values ≥5X CRDL or ±CRDL (±2XCRDL for soils) for values ≤5X CRDL:		N	N	N	N	N	N	N	N																	
MS/MSD:		N	N	N	N	N	N	N	N																	
Reporting Limits:		N	N	N	N	N	N	N	N																	
Completeness of Analyte List:		A	A	A	A	A	A	A	A																	
Field Duplicate Pair:		X	X	X	X	A	X	X																		
Equipment/Field Blank:		NA	NA	NA	NA	NA	NA	NA	NA																	

Note: X = Criteria were evaluated and not met. A = Criteria were evaluated and met. N = Data was not available for review. NA = Not applicable.

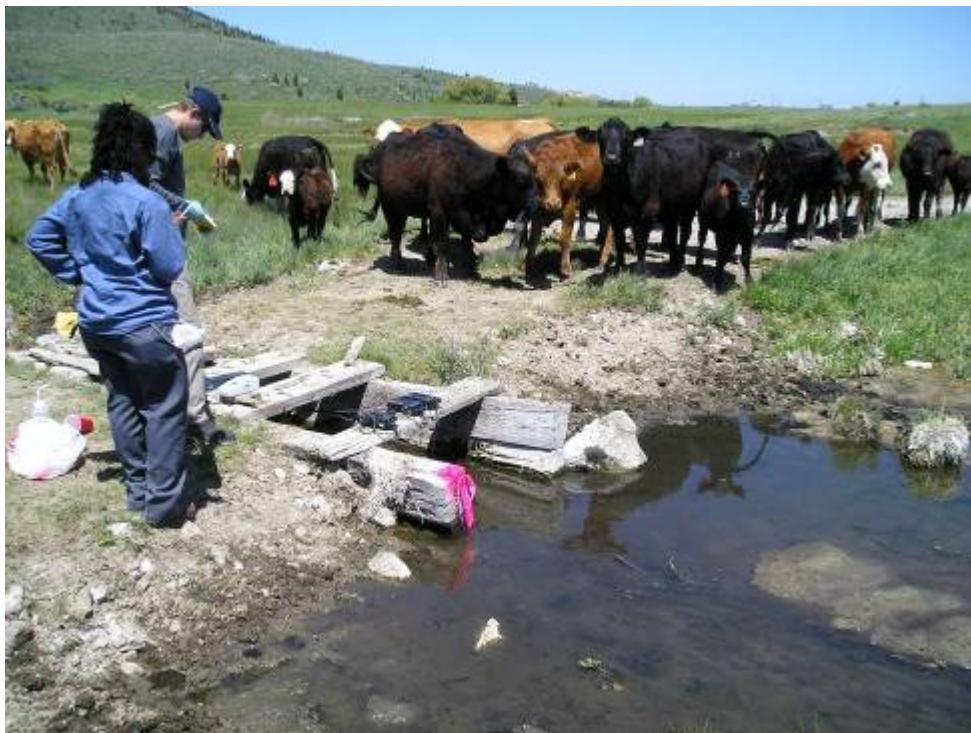
APPENDIX K
SURFACE WATER SAMPLING LOCATIONS



March 2015

K-1

913-1101-004.001.1G



MC-1 MORMON MOUTH



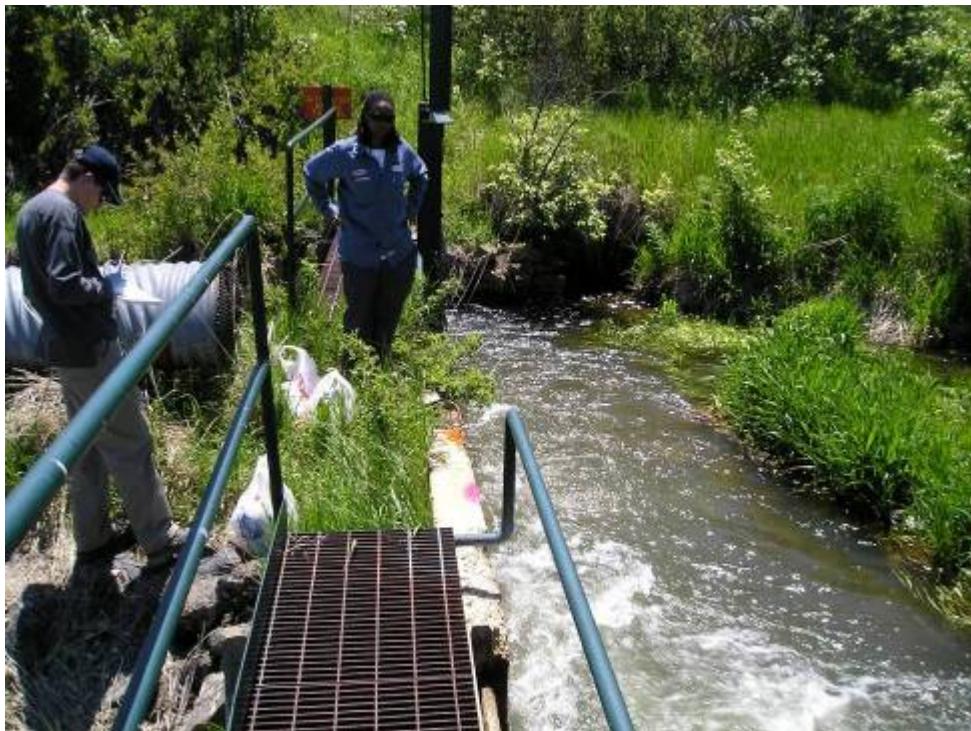
SC-01 SODA CREEK UPSTREAM



March 2015

K-2

913-1101-004.001.1G



SC-02 SODA CREEK AT IRRIGATION WEIR



SC-03 SODA CREEK MID (ABOVE MORMON CREEK CONFLUENCE)



March 2015

K-3

913-1101-004.001.1G



SC-04 SODA CREEK DOWNSTREAM



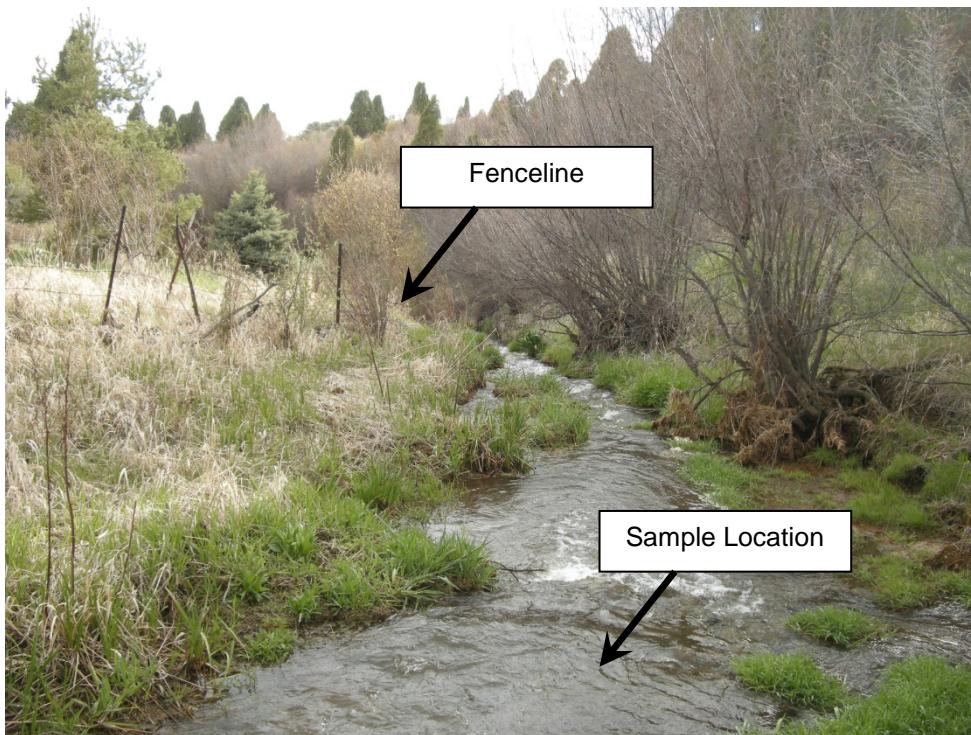
SC-05 SODA CREEK DOWNSTREAM OF DIVERSION WEIR



March 2015

K-4

913-1101-004.001.1G



SC-06 SODA CREEK AT PROPERTY LINE



SC-07 SODA CREEK UPSTREAM OF POWER RETURN



March 2015

K-5

913-1101-004.001.1G



SC-08 SODA CREEK AT OCTAGON PARK



SC-09 SODA CREEK AT IRRIGATION DIVERSION



March 2015

K-6

913-1101-004.001.1G



SC-10 SODA CREEK ABOVE RAILROAD BRIDGE



SC-11 SODA CREEK AT HIGHWAY 30



March 2015

K-7

913-1101-004.001.1G



PR-1 POWER CANAL

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

Africa	+ 27 11 254 4800
Asia	+ 852 2562 3658
Australasia	+ 61 3 8862 3500
Europe	+ 356 21 42 30 20
North America	+ 1 800 275 3281
South America	+ 55 21 3095 9500

solutions@golder.com
www.golder.com

**Golder Associates Inc.
18300 NE Union Hill Road, Suite 200
Redmond, WA 98052 USA
Tel: (425) 883-0777
Fax: (425) 882-5498**



Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation